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1	STATE OF MINNESOTA DISTRICT COURT
2	COUNTY OF RAMSEY SECOND JUDICIAL DISTRICT
3	
4	The State of Minnesota,
5	by Hubert H. Humphrey, III,
6	its attorney general,
7	and
8	Blue Cross and Blue Shield
9	of Minnesota,
10	Plaintiffs,
11	vs. File No. C1-94-8565
12	Philip Morris Incorporated, R.J.
13	Reynolds Tobacco Company, Brown
14	& Williamson Tobacco Corporation,
15	B.A.T. Industries P.L.C., Lorillard
16	Tobacco Company, The American
17	Tobacco Company, Liggett Group, Inc.,
18	The Council for Tobacco Research-U.S.A.,
19	Inc., and The Tobacco Institute, Inc.,
20	Defendants.
21	
22	DEPOSITION OF EMANUEL RUBIN, M.D.
23	Volume I, Pages 1- 243
24	
25	

1	(The following is the Deposition of EMANUEL			
2	RUBIN, M.D., taken pursuant to Notice of Taking			
3	Deposition, at the offices of Dorsey & Whitney,			
4	Attorneys at Law, Pillsbury Center South, 220 South			
5	Sixth Street, Minneapolis, Minnesota, on September 4,			
6	1997, commencing at approximately 8:36 o'clock a.m.)			
7	APPEARANCES:			
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10	Robins, Kaplan, Miller & Ciresi			
11	Attorneys at Law			
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15	On Behalf of Philip Morris Incorporated:			
16	Robert A. Schwartzbauer			
17	Dorsey & Whitney			
18	Attorneys at Law			
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21	Minneapolis, Minnesota 55402-1498			
22				
23				
24				
25				

1	On Behalf of Lorillard Tobacco Company:
2	William L. Allinder
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18	On behalf of The Council for Tobacco
19	Research-U.S.A.:
20	R. Lawrence Purdy
21	Maslon Edelman Borman & Brand
22	Attorneys at Law
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1	E X A M I N A T I O N I N D I	ΕX
2	WITNESS EXAMINED BY	PAGE
3	Emanuel Rubin, M.D. Mr. Gill	5
4		
5		
6		
7	EXHIBIT INDEX	
8	EXHIBIT DESCRIPTION	MARKED
9	Plfs.	
10	Ex. 3500 Doc. ent. "A Frank Statement	202
11	to Cigarette Smokers"; 1 page	
12		
13		
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16		
17		
18		
19		
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- 1 MR. GILL: Swear Dr. Rubin, please.
- 2 PROCEEDINGS
- 3 (Witness sworn.)
- 4 EMANUEL RUBIN, M.D.,
- 5 having been called as a witness and having been first
- 6 duly sworn, testified under oath as follows:
- 7 EXAMINATION
- 8 BY MR. GILL:
- 9 Q. Dr. Rubin, if any of my questions aren't clear
- 10 to you this morning, would you let me know about that
- 11 so that I can rephrase them?
- 12 A. I will.
- 13 Q. If you don't mention anything, I'll that assume
- 14 you understand the questions. Is that fair enough?
- 15 A. That's fair.
- 16 Q. Dr. Rubin, have you done some prior work in the
- 17 field of tobacco use and health before being retained
- 18 by attorneys on behalf of the tobacco companies?
- 19 A. It all depends what you mean by "work". I have
- 20 written on the subject of tobacco and health. I have
- 21 never done laboratory or clinical investigation in
- 22 the area.
- 23 Q. Either requested by the tobacco companies or
- 24 requested by anybody else?
- 25 A. That is correct, yes.

- 1 Q. And as I understand it, the conclusions that you
- 2 have come to based upon your review of the literature
- 3 on the subject of tobacco and health is that usage of
- 4 cigarettes causes cancer and other diseases?
- 5 A. That is my view.
- 6 Q. When were you first contacted on behalf of
- 7 attorneys representing the tobacco industry in
- 8 connection with serving as a consultant?
- 9 A. I believe it was early 1995.
- 10 Q. How did that come about?
- 11 A. Mr. William Allinder communicated with me and
- 12 actually came to visit me in my office.
- 13 Q. In Philadelphia?
- 14 A. In Philadelphia.
- 15 Q. Had you known Mr. Allinder prior to that
- 16 contact?
- 17 A. I had not.
- 18 Q. Did anybody approach you before Mr. Allinder in
- 19 connection with the same subject?
- 20 A. Not that I recall.
- 21 Q. Did Mr. Allinder initially telephone you before
- 22 he arrived at your office in Philadelphia?
- 23 A. Yes, he did.
- 24 Q. And at that time he introduced himself and that
- 25 was the first time that you and he had ever spoken?

- 1 A. We may have spoken on the telephone prior to his
- 2 visit. He did not show up like Minerva from the brow
- 3 of Zeus, no.
- 4 Q. And in connection with the telephone call, at
- 5 that time you didn't know Mr. Allinder?
- 6 A. I did not.
- 7 Q. And what did he tell you was the reason he was
- 8 contacting you?
- 9 A. He wanted to discuss the possibility that I
- 10 might embark upon a study for his firm.
- 11 Q. And did he indicate on behalf of which clients
- 12 of his firm that you would be working if you did
- 13 embark upon this study?
- 14 A. He indicated that it was in the area of tobacco,
- 15 but we never discussed the specific clients or
- 16 specific companies for which his firm was engaged.
- 17 Q. Did that subject come up at the time that you
- 18 had your official face-to-face meeting in
- 19 Philadelphia?
- 20 A. No. The -- the subject that came up was
- 21 actually related to the activities of The Council for
- 22 Tobacco Research.
- 23 Q. And how did he put that subject to you?
- MR. SCHWARTZBAUER: Objection. I'll
- 25 instruct the witness not to answer. I believe that

- 1 invades work product, and furthermore, it's contrary
- 2 to what we've agreed to with respect to protocols of
- 3 inquiries into expert witnesses in the case. Thank
- 4 you.
- 5 Q. Well during the initial contact by telephone I
- 6 -- I take it you must have indicated some
- 7 willingness to consider whatever assignment Mr.
- 8 Allinder had in mind; is that a fair statement?
- 9 A. I wouldn't turn down a job that has never been
- 10 offered.
- 11 Q. You essentially told them "If you want to come
- 12 out and talk to me about it, I'm available to meet
- 13 with you?"
- 14 A. Essentially.
- 15 Q. All right. And then the specifics were actually
- 16 covered during the face-to-face meeting in
- 17 Philadelphia?
- 18 A. Yes.
- 19 Q. And did you obtain an understanding as a result
- 20 of that meeting as to the nature of the assignment
- 21 that you were going to be undertaking?
- 22 A. I did.
- 23 Q. And I take it you agreed to undertake this
- 24 assignment?
- 25 A. I either agreed on the first meeting or the

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- 1 second meeting. I don't recall whether I agreed
- 2 instantaneously or not; I may have, or I may have
- 3 delayed it for a second meeting.
- 4 Q. And I take it that you understood that with
- 5 respect to this assignment you would be paid for your
- 6 time?
- 7 A. That was my understanding.
- 8 Q. As opposed to doing it on some sort of a
- 9 charitable basis?
- 10 A. I am a charitable person, but in this respect I
- 11 expected to be paid.
- 12 Q. What then was your understanding of the
- 13 assignment that you ultimately agreed to accept?
- 14 MR. SCHWARTZBAUER: Same objection as
- 15 before.
- 16 Q. I think you can answer that one, Dr. Rubin.
- 17 MR. SCHWARTZBAUER: I don't see how he can
- 18 answer that without invading the substance of the
- 19 discussions between himself and Mr. Allinder.
- 20 MR. GILL: Well I've simply asked him for
- 21 the -- his understanding of the assignment that he
- 22 understands he embarked upon.
- MR. SCHWARTZBAUER: I understand that, but
- 24 in prior depositions when similar subjects invading
- 25 the communications between Plaintiffs' counsel and

- 1 Plaintiffs' expert witnesses have come up, the
- 2 witness has been instructed not to answer, so we're
- 3 going to play by the same rules until we get a
- 4 further resolution of this.
- 5 MR. GILL: Well, Bob, I don't know how I
- 6 can inquire thoroughly as to his opinions if I don't
- 7 know what his assignment is.
- 8 MR. SCHWARTZBAUER: Well, I think you can.
- 9 You have his reports and so his opinions to the
- 10 extent he plans on testifying to them are certainly
- 11 outlined and contained basically within that report.
- 12 When we've inquired about related subjects we've been
- 13 prohibited on the grounds of work product from
- 14 inquiring into the assignments given by counsel for
- 15 the Plaintiffs. You can -- you can certainly ask him
- 16 what his opinions are and you can certainly ask him
- 17 what his reports says and you can ask him about facts
- 18 relevant to those issues, but I don't think you can
- 19 inquire into communications or instructions given by
- 20 counsel for the Plaintiffs -- or excuse me -- for the
- 21 Defendants in the case.
- 22 MR. GILL: Well can you just tell me, Bob,
- 23 what were the depositions where our side instructed
- 24 our experts not to divulge their assignments?
- MR. PURDY: I can give you one specifically

- 1 is Dr. Hurt recently, I was there, and Miss Walburn
- 2 on behalf of Plaintiffs -- and this is Larry Purdy
- 3 for CTR -- absolutely precluded any discussion
- 4 whatsoever into communications between the counsel
- 5 for the Plaintiffs and Dr. Hurt and indicated that
- 6 was their position and they would not permit it.
- 7 MR. SCHWARTZBAUER: The other two that come
- 8 to mind are the depositions of Dr. Samet and the
- 9 deposition of Dr. Channing Robertson.
- 10 MR. GILL: And as opposed to communications
- 11 with counsel, you're telling me that Plaintiffs'
- 12 attorneys instructed Plaintiffs' expert witnesses
- 13 that they could not divulge their understanding of
- 14 the assignment that they had undertaken?
- MR. PURDY: Let -- let me just -- counsel,
- 16 what was clear is that any question which crossed
- 17 into communications between the lawyers and the
- 18 witness, the lawyers for the party and the witness,
- 19 would not be permitted, that it was an invasion of
- 20 work product, and I think what Mr. Schwartzbauer has
- 21 said, and I agree with him, is that your question --
- 22 how can it be answered if he doesn't get into the
- 23 communications? I would say this: If you can
- 24 rephrase your question where you're not attempting to
- 25 get communications from the lawyers to Dr. Rubin,

- 1 then I think you can ask that, and it's no effort to
- 2 preclude you from finding out what Dr. Rubin's -- I
- 3 mean obviously he's given you a report, you
- 4 understand what his assignment is, he's told you what
- 5 the subject is, you can talk about those things.
- 6 Where you cross over and begin to invade the
- 7 discussions between the lawyers and Dr. Rubin, we
- 8 have to stand on the same position that your people
- 9 have taken.
- 10 BY MR. GILL:
- 11 Q. Dr. Rubin, let me apologize if my question then
- 12 wasn't clear. I'm not seeking to in inquire now as
- 13 to specific communications from Mr. Allinder to you,
- 14 but at some point in this case you have prepared a
- 15 report that contains opinions; correct?
- 16 A. That is correct.
- 17 O. And what I'd like to know is that in connection
- 18 with those opinions what was your understanding of
- 19 what it was that you were assigned to investigate?
- 20 A. It was my understanding that certain allegations
- 21 had been made regarding the activities of The Council
- 22 for Tobacco Research. It was my further
- 23 understanding that I was requested to review the
- 24 topic and report to Mr. Allinder my findings as to
- 25 whether I agreed with those allegations or whether I

- 1 disagreed with them and the reasons for either one.
- 2 Q. So there were specific allegations that you were
- 3 going to investigate related to the conduct of CTR?
- 4 A. That's correct.
- 5 Q. And what was your understanding of those
- 6 allegations as to which you were going to make an
- 7 investigation?
- 8 A. Briefly, it was that the allegation or
- 9 accusation had been made that the CTR was not a
- 10 legitimate grant-funding institution and that it
- 11 represented a front, sham or fraudulent activity.
- 12 Q. Any others? You do have to answer audibly.
- 13 A. I think that's pretty good.
- 14 Q. You think that's complete?
- 15 A. Well, I don't want to say that I'm going to
- 16 withdraw my right to add to that or amend it as my
- 17 memory serves me, but that is the -- the substance of
- 18 the allegations.
- 19 Q. All right. In other words, at the moment the
- 20 only allegations that come to mind that you were
- 21 asked to investigate were the two that you just told
- 22 me about?
- 23 MR. ALLINDER: Objection as to form of the
- 24 question.
- 25 Q. Is that correct, Dr. Rubin?

- 1 A. I'm not aware of two.
- Q. I think I heard you say an allegation that CTR
- 3 was not a legitimate grant-funding institution. Did
- 4 I hear that correctly?
- 5 A. Well I -- I am including that as a -- an
- 6 alternate way of saying that it was a sham or a
- 7 front, illegitimate, whatever you want to call it.
- 8 Q. Now since you were being paid for your time, I
- 9 take it that you confined your research to those
- 10 subjects?
- 11 A. I was not under a prohibition to refrain from
- 12 reading other materials.
- 13 Q. Let me try to rephrase that because I don't
- 14 think my question was clear. I wasn't speaking there
- 15 to the nature of the materials that you reviewed in
- 16 connection with that allegation, but simply
- 17 suggesting that since you were being paid for your
- 18 time, I take it that you confined your research to
- 19 that particular allegation and your findings
- 20 thereon. Is that fair?
- 21 A. Well I've read a lot of material that relates to
- 22 these allegations; some of them contain material that
- 23 is directly relevant or pertinent to that topic, some
- 24 of them indirectly relevant, and I would say that
- 25 some of them that provide an understanding of the

- 1 ambience or the environment in which these
- 2 discussions are occurring.
- 3 Q. But all related to the allegation that the CTR
- 4 was either not a legitimate grant-funding institution
- 5 or that it was a front or a sham?
- 6 MR. ALLINDER: Objection, misstates his
- 7 testimony.
- 8 Q. Is that true?
- 9 A. My motive in reviewing these materials was to
- 10 understand better the allegations and the truth or
- 11 falsity of them.
- 12 Q. Okay. Dr. Rubin, at any time up to the present
- 13 have you ever enlarged your investigation beyond the
- 14 allegations that you've already told me about this
- 15 morning --
- MR. PURDY: Let me --
- 17 Q. -- into any other allegations?
- MR. PURDY: Excuse me, counsel. Let me
- 19 just interject for the record I think to the extent
- 20 that he can answer that without divulging, and I
- 21 don't know whether he had conversations or not, but I
- 22 would simply caution Dr. Rubin that to the extent he
- $23\,$ had conversations with counsel that asked him to do
- 24 something else, then I think you're crossing the
- 25 bounds that -- the restriction that has been

- 1 specifically laid down by counsel for the Plaintiffs,
- 2 but that's my objection. I just would caution Dr.
- 3 Rubin.
- 4 Q. I assume, Dr. Rubin, that Mr. Allinder and
- 5 perhaps others have fully explained to you the
- 6 concept of work product?
- 7 A. Well I'm not a lawyer. I -- my understanding of
- 8 work product is that of a layman in terms of law.
- 9 Q. But I take it that you've obtained during the
- 10 course of your consultancy on this case at least some
- 11 understanding of this legal concept of work product;
- 12 true?
- 13 A. The intricacies of the law are very difficult
- 14 for a nonlawyer to penetrate, but insofar as I've
- 15 been able to, I have an appreciation of what you're
- 16 talking about.
- 17 Q. Now in none of my questions today, or tomorrow
- 18 for that matter, am I seeking to have you divulge to
- 19 me specifically what Mr. Allinder or any other
- 20 attorney representing the tobacco companies has told
- 21 you. All right. Is that clear?
- 22 A. I understand what you're saying.
- 23 Q. Now, my question was: Did you ever expand the
- 24 scope of your research beyond the allegations that
- 25 you have already discussed with me this morning?

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- 1 A. Well I think I -- I've really answered that, but
- 2 let me try to make it clearer. I am prepared to
- 3 respond to you as an expert in the area -- in those
- 4 areas that relate to the activities of the CTR. I do
- 5 not want to profess ignorance of every other aspect
- 6 of tobacco litigation. I may have acquired all kinds
- 7 of information, including reading the New York Times
- 8 and The Wall Street Journal, to say nothing of the
- 9 National Enquirer, but in this proceeding that we
- 10 have here today my preparation has been to respond to
- 11 questions regarding allegations of CTR activities and
- 12 the truth or falsity of them.
- 13 Q. And you've told me about some specific
- 14 allegations that you've investigated and now I'd like
- 15 to know, have there been any others that you have
- 16 undertaken at any time since you were initially
- 17 retained up to the present, any other specific
- 18 allegations about CTR that you have investigated?
- 19 MR. ALLINDER: Objection, confusing.
- 20 A. You know, what I was trying to do was to
- 21 generalize the allegations by using global type of
- 22 language. I'm not prepared to go into every specific
- 23 allegation about every specific item unless --
- 24 regarding CTR unless you specifically ask me those
- 25 questions.

- 1 Q. And once again -- I guess my question still
- 2 wasn't quite clear -- I understand that there may be
- 3 some subcategories to the general global allegations
- 4 that you've told me about this morning and I'm not
- 5 attempting to preclude you on those points. What I'd
- 6 like to know is are there any other general global
- 7 allegations that you've investigated as an expert in
- 8 this case?
- 9 MR. ALLINDER: Objection.
- 10 A. The short --
- 11 MR. ALLINDER: Excuse me. Objection.
- 12 A. The short answer is no. But I $\operatorname{\mathsf{I}}$ -- I want to go
- 13 on record as reserving the right to -- to amend that
- 14 if your questions bring to mind some other aspects of
- 15 the -- these allegations that you -- you may not feel
- 16 were included in this global aspect.
- 17 Q. Did you ever obtain an understanding up to today
- 18 as to who Mr. Allinder's clients are?
- 19 A. Mr. Allinder's clients are tobacco companies.
- 20 Q. And what were your qualifications as you saw
- 21 them to investigate the truth or falsity of
- 22 allegations that the CTR was not a legitimate
- 23 grant-funding institution?
- 24 A. My -- I have been in academic medicine for more
- 25 than 35 years. During that time I have personally

- 1 published more than 250 papers, some 7 or 8 books,
- 2 probably \$35 to \$40 million in grants from the
- 3 National Institutes of Health. I have served on many
- 4 review groups that are responsible for funding grants
- 5 from the NIH, have served as Editor in Chief of one
- 6 of the major biomedical journals in the world for 14
- 7 years, have served on editorial boards reviewing
- 8 papers for many journals for many years, and have
- 9 taught more than a generation of medical students and
- 10 graduate students in the biological sciences. If you
- 11 give me time, I may come up with some more
- 12 qualifications, but those are among the ones that I
- 13 would list.
- 14 Q. During the experience that you have just
- 15 outlined for us have you ever personally confronted
- 16 any fraud in the conduct of medical research, as you
- 17 understood it?
- 18 A. No.
- 19 Q. Have you ever, prior to this case, been asked to
- 20 investigate whether or not some type of fraud
- 21 occurred with respect to the operation of an entity
- 22 such as CTR?
- 23 A. No.
- 24 Q. Prior to the time that you were retained for
- 25 this assignment did you explain to Mr. Allinder that

- 1 you didn't have any direct experience with respect to
- 2 fraud in connection with medical research?
- 3 A. The use of "fraud" here has to be restricted.
- 4 Fraud can be used to describe scientific misconduct
- 5 that is a situation in which an investigator
- 6 fabricates data or falsifies data or plagiarizes
- 7 data. That is in one sense considered fraud and
- 8 that's scientific misconduct. Another use of the
- 9 word "fraud" would be that of an organization which
- 10 purports to be one thing and actually acts in a
- 11 different and in -- inappropriate manner. So you
- 12 have to define for me what -- what do you mean by
- 13 "fraud".
- 14 Q. Do you have any experience in confronting either
- 15 type of the frauds that you just explained to me?
- 16 A. Personally I have not been engaged in
- 17 confronting any type of fraud.
- 18 Q. And have -- prior to this case, have you ever
- 19 been asked to investigate either of the two types of
- 20 scientific misconduct or fraud that you just
- 21 explained to me?
- 22 A. I have not.
- 23 Q. And did you explain that to Mr. Allinder before
- 24 you accepted this assignment?
- 25 A. No.

- 1 Q. Now, as I understand your report, at least one
- 2 of the primary focuses of your investigation had to
- 3 do with the research that was authorized by the
- 4 Scientific Advisory Board of the CTR; is that
- 5 correct?
- 6 A. CTR does not authorize any research. It funds
- 7 research.
- 8 Q. The Scientific Advisory Board authorizes the
- 9 research in the sense that it would be asked to
- 10 either approve or disapprove funding; is that true,
- 11 is that your understanding?
- MR. PURDY: Object to the form.
- 13 A. Well that's also not entirely correct. The --
- 14 as -- according to my understanding, the Scientific
- 15 Advisory Board acts or acted in a fashion similar to
- 16 the review committees of the National Institutes of
- 17 Health or organizations such as the American Cancer
- 18 Society or the American Heart Association. In
- 19 evaluating applications it is a general policy to
- 20 rate them on some scale. The funding decisions are
- 21 then made according to how much money is available to
- 22 fund the grants, so that grants are funded in order
- 23 of their priority. And when the amount of money
- 24 allocated for research is reached, the remaining
- 25 grants are not funded.

- 1 Q. So your understanding is that with respect to
- 2 the CTR, the Scientific Advisory Board had purely an
- 3 advisory function?
- 4 MR. ALLINDER: Objection.
- 5 A. It's called advisory.
- 6 Q. And is it your understanding that that was its
- 7 main function, to simply advise the management of CTR
- 8 with respect to a priority of issuing funding
- 9 dollars?
- 10 MR. PURDY: Object to the form.
- 11 A. It creates the priority list.
- 12 Q. And do I understand correctly that a primary
- 13 area of your investigation in this case has been to
- 14 focus on the projects that were actually funded by
- 15 the CTR in terms of the quality and relevance of the
- 16 -- of those research projects?
- 17 A. That was one --
- 18 Q. One of the primary?
- 19 A. -- of the -- one of the objectives.
- 20 Q. What were the others?
- 21 A. I was interested in the composition of the
- 22 Scientific Advisory Board in terms of the
- 23 qualifications, reputations and achievements of the
- 24 members of the Scientific Advisory Board.
- 25 Q. And you were satisfied, I take it, based upon

- 1 your review that the members of that board were by
- 2 and large well qualified for those tasks?
- 3 A. I was surprised that -- how distinguished a
- 4 group of investigators the CTR had been able to
- 5 persuade to serve on the Scientific Advisory Board.
- 6 Q. What were the other objectives?
- 7 A. I was also interested in noting the
- 8 investigators who were funded by the CTR.
- 9 Q. That would come under the heading of quality --
- 10 quality and relevance of the research projects;
- 11 correct?
- 12 A. That would not, sir, because a totally unknown
- 13 investigator from East Overshoe General Hospital
- 14 conceivably might come up with a world-class paper,
- 15 so it is not the same issue. The paper published in
- 16 a peer-review journal stands on its own regardless of
- 17 the location or the reputation of the investigator.
- 18 Q. So you're saying the qualifications of the
- 19 researchers as that might bear upon ultimately --
- 20 A. Well --
- 21 Q. -- the quality and relevance of the research?
- 22 A. -- I think that the quality of the research
- 23 program can be judged in part, but only in part, by
- 24 the quality, reputation, institutions, et cetera of
- 25 the investigators who are funded; in other words, one

- 1 would ask the question: Have all the grants been
- 2 awarded to investigators at inferior institutions who
- 3 have no particular scientific reputation? Or have a
- 4 substantial number of the projects been -- or the
- 5 funds been awarded to investigators who have made
- 6 previous contributions to the biomedical literature?
- 7 So do you wish for me to continue?
- 8 Q. No. What other criterion did you apply to your
- 9 investigation into these allegations, criteria
- 10 objective?
- 11 A. I was also interested in the institutions to
- 12 which grants were awarded. In this respect grant
- 13 applications have to be approved by the institution
- 14 before they are submitted to any organization for
- 15 funding. When the funds are awarded they are awarded
- 16 to the institution, not to the individual
- 17 investigator. The investigator then has the right to
- 18 draw upon those funds from the institution, but they
- 19 do not go to the individual's bank account, so that I
- 20 was interested to see what types of institutions were
- 21 the recipients of these grants.
- 22 Q. Any other criterion that you --
- 23 A. Yes. I thought it would also be interesting to
- 24 see whether the papers that were published that
- 25 acknowledged support from the CTR were written with

- 1 any other investigators or whether these were all
- 2 loan wolves out -- out there seeking money for their
- 3 research. And I also was interested to see whether
- 4 other sources of funding were acknowledged in the
- 5 same paper, because clearly if a paper is supported
- 6 by the CTR but is also supported partly by NIH or
- 7 American Cancer Society or the government of Sri
- 8 Lanka or what have you, that whatever responsibility
- 9 for the paper might exist or might be attributing to
- 10 the funding agency would be shared by other funding
- 11 agencies as well.
- 12 Q. All right. Any other criteria that you applied
- 13 to your investigation?
- 14 A. I was interested in the type of journals in
- 15 which the papers appeared. Were they so-called
- 16 peer-reviewed? Were they throwaway journals? Were
- 17 they journals of high quality; that is, highly-cited
- 18 journals that were generally accepted as frontline
- 19 journals. I think that includes the major items that
- 20 I looked at, but I -- I would want the right to add
- 21 to that if you jog my memory.
- 22 Q. Would you agree that a number of the criteria
- 23 that you just mentioned to me have got to do at least
- 24 in a general sense with reaching opinions as to the
- 25 quality of the research?

- 1 A. They're bear upon that, certainly.
- 2 Q. Now I take it that as you undertook this
- 3 investigation, you did not intend to operate as an
- 4 advocate for Mr. Allinder's clients?
- 5 A. Sir, I -- I'm not an advocate. I'm a physician
- 6 and a pathologist and an educator and investigator,
- 7 but I'm not an advocate.
- 8 Q. And you didn't accept this assignment from Mr.
- 9 Allinder to act in the role of an advocate, did you?
- 10 A. I did not. When I -- I accepted this
- 11 assignment, I told Mr. Allinder that I would
- 12 investigate the topic and I would let the chips fall
- 13 where they may; that is, if I had doubts about the
- 14 authenticity or the quality of the research or the
- 15 way in which the data were presented that I would
- 16 have to tell him that.
- 17 Q. And I take it you explained to Mr. Allinder in
- 18 one way or another that you did not regard your role
- 19 in this case to be one of explaining away any
- 20 damaging evidence that you might come across during
- 21 the course of your investigation; true?
- 22 A. I specifically brought that topic up with Mr.
- 23 Allinder during our initial meeting, that I would do
- 24 as thorough an investigation as I could, and that
- 25 whatever conclusions I came to I would share with

- 1 him.
- 2 Q. And I take it the conclusions that you expected
- 3 to come to or that you ultimately did come to were
- 4 related specifically to the allegations that you were
- 5 asked to investigate?
- 6 A. That is correct.
- 7 Q. Now one of the opinions that you have developed
- 8 in this case is that you saw nothing unseemly about
- 9 the evolution of the research that was funded by CTR
- 10 between its genesis in 1954 up to the present time;
- 11 is that a fair statement?
- 12 A. That's fair.
- 13 Q. And as I understand your report, it was your
- 14 view after reviewing a good deal of -- of literature
- 15 that in the early years of CTR it was called the
- 16 Tobacco Institute Research Committee at that time?
- 17 MR. ALLINDER: Objection.
- MR. PURDY: Objection; that's not accurate.
- MR. ALLINDER: Industry.
- 20 Q. I'm sorry. That's correct. Let me just ask the
- 21 question again.
- 22 You understand that when -- that CTR's
- 23 predecessor is known as TIRC?
- 24 A. That's correct.
- 25 Q. Tobacco Industry Research Committee?

- 1 A. TIRC.
- 2 Q. And as I understand, one of the opinions that
- 3 you've developed is that the first several years of
- 4 research by TIRC had a good deal to do with the
- 5 relationship between tobacco use and health?
- 6 MR. ALLINDER: Objection.
- 7 Q. Is that true?
- 8 A. That is correct.
- 9 Q. And that sometime around 1970 or so that
- 10 research evolved into a focus that was primarily upon
- 11 the cause and origin of diseases?
- 12 MR. ALLINDER: Objection.
- 13 Q. Is that true?
- 14 A. Partially true, but let me explain. The early
- 15 days of the TIRC and its successor, CTR, were
- 16 characterized by a focus, as you had correctly
- 17 indicated, on the broader issues of tobacco and
- 18 health because many of the epidemiologic studies were
- 19 actually in the early stage of development or
- 20 required confirmation or additions to. There were
- 21 many things that were not clear in those terms, and
- 22 that was the focus, not only of the TIRC and CTR, but
- 23 many other organizations at that time. As these
- 24 issues became developed and the data became clearer,
- 25 the focus of many institutions, biomedical research

- 1 in general, began to narrow down to the basic
- 2 biologic or pathogenetic mechanisms that were -- that
- 3 underlie these diseases. In that respect the CTR was
- 4 in the mainstream of American biomedical research and
- 5 began to focus on those issues that were relevant to
- 6 the molecular and cellular aspects of diseases that
- 7 were statistically associated with smoking. These
- 8 would include basic studies, lung function and lung
- 9 enzymes, basic studies of cancer, how cancer forms,
- 10 what is the cellular basis, what are the inciting
- 11 factors. There were studies on the basic pharmacal
- 12 or physiological effects of nicotine. I could name
- 13 more. But in this respect the CTR did change its
- 14 focus gradually over the years in the same way that
- 15 virtually all biomedical research in the United
- 16 States and indeed abroad has changed.
- 17 Q. Now I take it as a board certified pathologist
- 18 that you were keeping yourself generally aware of
- 19 this evolutionary development in the research
- 20 relating to these diseases as it was occurring in the
- 21 50s, 60s, 70s and 80s.
- 22 A. I think that's fair.
- 23 Q. And you mentioned that there was a mainstream
- 24 biological research and that CTR was a part of that.
- 25 A. Well the CTR didn't do research itself. The CTR

- 1 funded research and --
- 2 Q. But the CTR funded research was a part of --
- 3 MR. ALLINDER: Excuse me.
- 4 Q. -- the mainstream?
- 5 MR. ALLINDER: Were you done with your
- 6 answer?
- 7 THE WITNESS: . Yes.
- 8 MR. ALLINDER: Okay.
- 9 Q. Would that be a better way to say it, that the
- 10 CTR funded research was a part of this biomedical
- 11 mainstream?
- 12 A. In my opinion that's true.
- 13 Q. Now as you were reviewing the literature as --
- 14 as being issued throughout the course of this
- 15 evolution, was the mainstream of this research
- 16 basically reporting that the case linking smoking to
- 17 lung cancer and these other diseases has now been
- 18 established; therefore we should move the focus of
- 19 the investigation to the etiology of these diseases?
- 20 MR. ALLINDER: Objection.
- 21 A. In general that's true.
- 22 Q. Have you seen any documents among the vast
- 23 number of documents that you've reviewed in this case
- 24 that indicated that CTR as an organization agreed
- 25 with that assessment that the case linking cigarette

- 1 use to lung cancer and these other diseases has been
- 2 firmly established and that it's now time to re-focus
- 3 the investigation?
- 4 MR. ALLINDER: Objection to the form of the
- 5 question.
- 6 A. Well, from my point of view, the funding
- 7 decisions of the CTR or the priority decisions, if
- 8 you will, were made by the Scientific Advisory Board,
- 9 and the Scientific Advisory Board being made up of a
- 10 number of investigators and educators from different
- 11 disciplines, different parts of the country,
- 12 different institutions, had their own individual
- 13 opinions. Now I don't know all of the opinions of
- 14 the various members of the SAB at any one time. So
- 15 -- and I've never talked to any of those people and
- 16 asked them specifically what -- what was or what is
- 17 your opinion regarding these issues. What I can tell
- 18 you is that the results of their deliberations and
- 19 their review decisions were to fund, to support
- 20 projects that were in the mainstream of American
- 21 research.
- 22 Q. You understand that the members of the CAB were
- 23 not employees of CTR; true?
- MR. ALLINDER: Excuse me?
- 25 A. The CAB is the Civil Aeronautics Board, isn't

- 1 it?
- 2 Q. I'm sorry. I'm getting my acronyms confused.
- 3 Let me try that question again. You understand that
- 4 the members of CAB were not employees--
- 5 MR. ALLINDER: Did it again.
- 6 MR. PURDY: SAB.
- 7 Q. The members of the SAB. Let me start all over.
- 8 You understand that the members of the SAB were
- 9 not employees of CTR?
- 10 A. They were not, and in this respect the SAB
- 11 functioned in a manner similar to that of the other
- 12 review committees. For instance, when I have served
- 13 on the NIH study sections, a colloquial term, called
- 14 the initial review groups, I was not an employee of
- 15 the federal government. The people who serve on the
- 16 review committee of the American Cancer Society are
- 17 not employees of the American Cancer Society. These
- 18 are more voluntary and actually pro bono type of
- 19 work. The compensation or honorarium would be
- 20 considered a tip. It's not real payment for
- 21 consultation.
- 22 Q. But you understand that the American Cancer
- 23 Society does in fact have some employees on its
- 24 payroll?
- 25 A. I don't know anything about it, but I would

- 1 assume they have secretaries and --
- 2 Q. Administrator?
- 3 A. -- executives, administrators, yes.
- 4 Q. And you've seen statements issued on behalf of
- 5 the American Cancer Society; true?
- 6 MR. ALLINDER: Objection.
- 7 A. In the newspapers.
- 8 Q. And it is not unusual for any number of
- 9 organizations that fund research to issue statements
- 10 in the name of the organization concerning the
- 11 research that they funded; true?
- 12 A. That's reasonable.
- 13 Q. And with respect to the CTR and its predecessor,
- 14 the TIRC, you understand that those organizations had
- 15 paid employees?
- 16 A. They did.
- 17 Q. And the paid employees included not only
- 18 secretaries and clerical personnel, but
- 19 administrative and management personnel?
- 20 A. I'm not familiar with the administrative
- 21 structure other than the scientific director being a
- 22 full-time paid employee --
- 23 Q. So there --
- 24 A. -- of the CTR.
- 25 Q. The scientific director was also a member of the

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- 1 SAB; correct?
- 2 A. That's correct.
- 3 Q. So there was at least one member of the SAB who
- 4 was an employee of CTR and was receiving some type of
- 5 annual compensation?
- 6 A. That's -- that's what I understand.
- 7 Q. And are you indicating that you weren't aware
- 8 that other than the scientific director that the CTR
- 9 also employed some executive officers?
- 10 A. I think there is a president of the CTR.
- 11 Q. And is it your understanding that prior to Mr.
- 12 -- prior to Dr. Glenn holding that position, that
- 13 that position has always been held by a retired
- 14 tobacco company executive?
- MR. ALLINDER: Objection.
- 16 A. I don't recall exactly, but I am not going to
- 17 contest that.
- 18 Q. And is it your understanding that CTR has a
- 19 board of directors?
- 20 A. It has, but I -- I can't say that I am
- 21 intimately acquainted with that topic.
- 22 Q. During the course of your investigation have you
- 23 become aware to any extent of the composition of the
- 24 board of directors of CTR over any period of time?
- 25 A. No.

- 1 Q. Were you aware of the fact that representatives
- 2 of the tobacco industry comprised the board of
- 3 directors of T -- TIRC and then CTR?
- 4 MR. ALLINDER: Objection.
- 5 A. I know they participated in some way, but I -- I
- 6 don't know the precise details.
- 7 Q. Did you know that TIRC and then CTR are actually
- 8 owned by tobacco companies?
- 9 A. Well, I don't know the legal aspects of it. I
- 10 know that they are supported as an activity of these
- 11 companies, but I'm not a lawyer or an accountant.
- 12 Q. But you're familiar, I take it, with the concept
- 13 of corporations and how corporations are owned by
- 14 shareholders?
- 15 A. Yes.
- 16 Q. You may have even purchased some stock in a
- 17 corporation somewhere along the line yourself; true?
- 18 A. That is true.
- 19 Q. And is it your understanding or are you aware of
- 20 the fact that the shareholders who own CTR are
- 21 tobacco companies?
- 22 A. Yeah, I believe that's true.
- 23 Q. Now going back to -- to my original question on
- 24 this topic, are you aware of any document issued by
- 25 CTR as an organization in which CTR acknowledged that

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- 1 it was changing the focus of its research because
- 2 that the case linking tobacco use to lung cancer and
- 3 other diseases had been firmly established?
- 4 MR. ALLINDER: Objection.
- 5 A. I'm not aware of a document that says that.
- 6 Q. So if CTR-funded research followed the
- 7 evolutionary mainstream that you described, it was
- 8 without the type of acknowledgment that you
- 9 understood other members of that mainstream made with
- 10 respect to the link between tobacco use and lung
- 11 cancer and other diseases?
- 12 MR. ALLINDER: Objection.
- MR. PURDY: Objection.
- MR. ALLINDER: Misstates his testimony.
- 15 Q. Isn't that true?
- MR. PURDY: Objection. Object to the
- 17 form.
- 18 A. I -- you'll have to read something back to me.
- 19 I don't remember saying that American Cancer Society
- 20 or American Heart Association published documents
- 21 saying that they were changing the focus of their
- 22 research. In fact just as Darwinian evolution was
- 23 gradual, although, as I'm sure you know, there are
- 24 arguments about that, some people claim punctuated
- 25 equilibrium and that is jumps and starts, but that's

- 1 beside the point, this was not a -- to my way of
- 2 thinking on the part of the CTR or the NIH or other
- 3 organizations a conscious decision taken at one
- 4 moment to change the direction of research. As
- 5 research priorities have changed because of changes
- 6 in technology and changes in epidemiologic findings,
- 7 changes in our accumulation of data and our general
- 8 knowledge of the topics, research will change
- 9 according to those alterations in the state of the
- 10 art, if you will. So I do not view this as a
- 11 conscious decision either on the part of the CTR or
- 12 other voluntary oganizations or government funding
- 13 organizations to change the direction, but that's
- 14 what's happened, and it's happened to my own
- 15 research.
- 16 Q. Dr. Rubin, do you recall telling me a few
- 17 minutes ago that as you were reviewing the literature
- 18 yourself as a pathologist, you came to the
- 19 understanding that the focus of the research was
- 20 changing in the 70s because the case against tobacco
- 21 use had been firmly established, or words to that
- 22 effect?
- MR. ALLINDER: Objection.
- 24 A. You'll have to read back to me where I said
- 25 that. I -- I don't -- I don't recall putting it in

- 1 those words.
- 2 Q. Well the record --
- 3 A. Let me try to help you.
- 4 Q. Yeah. And basically what I'd like to know is do
- 5 you recall words to that effect?
- 6 A. I don't recall words to the effect of what you
- 7 are saying, but let me rephrase what I said and
- 8 perhaps I can satisfy you. The accumulating data
- 9 relating tobacco use to certain diseases became
- 10 sufficiently substantial, large, persuasive, that a
- 11 consensus developed in the biomedical community that
- 12 a statistical relationship did indeed exist between
- 13 smoking, cancer of the lung, emphysema, chronic
- 14 bronchitis, heart disease, and so on. Once that
- 15 consensus had developed, and I say consensus because
- 16 it wasn't by any means unanimous, there were many
- 17 legitimate physicians or investigators who had
- 18 contested that point of view, but there was a general
- 19 consensus, and among those who followed this
- 20 consensus the way to approach these problems was not
- 21 by doing more studies that would confirm previous
- 22 studies or that would rehash old data but to embark
- 23 on $\operatorname{\mathsf{--}}$ in new directions and try to determine the
- 24 biological basis for the association that had been
- 25 observed epidemiologically. Now does that make it

- 1 clear?
- 2 Q. Well, this consensus that you're referring to,
- 3 it was sufficient to have convinced you of the
- 4 relationship between tobacco use and lung cancer and
- 5 other diseases by the early 60s; true?
- 6 MR. ALLINDER: Objection.
- 7 A. You know, it's hard to recall exactly what your
- 8 own impressions were at any one time. In the early
- 9 60s I would say that I was persuaded that smoking
- 10 causes lung cancer, and I thought that likely
- 11 influenced the development of emphysema. I don't
- 12 think I had any particular opinions regarding smoking
- 13 and heart disease at that time or smoking and some of
- 14 the other malignant conditions that are associated
- 15 with the use of tobacco.
- 16 Q. When did you develop the opinion that smoking
- 17 causes cardiovascular disease?
- 18 MR. ALLINDER: Objection.
- 19 A. I would say some time in the 1970s probably.
- 20 Q. Not until the 1970s?
- 21 A. Well it's been my impression that coronary
- 22 artery disease is a very complex matter; it involves
- 23 diet, it involves clotting factors, it involves
- 24 platelets, it involves vessel walls, it involves
- 25 life-style perhaps, the use of drugs such as aspirin

- 1 and alcohol, geographic and racial differences. I
- 2 think it was a little more difficult to tease out the
- 3 relationship to tobacco in that area than lung
- 4 cancer.
- 5 Q. Doctor, recognizing that there may be a number
- 6 of contributing factors to cardiovascular disease,
- 7 when did you arrive at the opinion that smoking
- 8 played a substantial part in contributing to
- 9 cardiovascular disease?
- 10 MR. PURDY: Object to the form.
- 11 A. Well with -- with the understanding that
- 12 coronary artery disease is not -- was not the
- 13 principal focus of my intellectual activities, I
- 14 think that the case had become strong enough by the
- 15 mid 70s or thereabouts for me to be persuaded that
- 16 the statistical association was real and that smoking
- 17 was a contributor to coronary artery disease.
- 18 Q. When did you arrive at the opinion that
- 19 cigarette smoking played a substantial part as a
- 20 contributing factor in the development of laryngeal
- 21 cancer?
- MR. PURDY: Object to the form.
- 23 A. I'd say in the 60s.
- 24 Q. And with respect to all of the opinions that you
- 25 have just told me about that you had developed on

- 1 those subjects of smoking and health risks, your
- 2 opinions had been developed solely by reading the
- 3 literature; true, the published literature?
- 4 A. I think that's fair.
- 5 Q. And it was while reading and keeping up with the
- 6 published literature that you became aware that in
- 7 the early 70s there was a re-focusing of the research
- 8 toward the etiology of disease as opposed to tobacco
- 9 use as a health risk?
- 10 MR. ALLINDER: Objection.
- 11 A. At that time I was not aware what the CTR was
- 12 doing.
- 13 Q. My question went to your own understanding of
- 14 where the research was going. I think you told me
- 15 that as you reviewed the published research, by the
- 16 $70 \mathrm{s}$ you understood that the research was moving on to
- 17 the etiology of disease because the case establishing
- 18 the link between smoking and lung cancer and other
- 19 diseases had already been established.
- 20 MR. ALLINDER: Objection.
- 21 Q. True?
- 22 A. The answer is yes, but. And the "but" is that
- 23 when you say "established," as far as I'm concerned,
- 24 it was established, but established in this -- in
- 25 this sense means to me --

- 1 Q. I understand.
- 2 A. -- a consensus. There was a general, majority
- 3 opinion that A, B, C were true, but when you say
- 4 established, it's not established in the sense that
- 5 the earth revolves around the sun.
- 6 Q. But established at least to your satisfaction,
- 7 that's what you're trying to say?
- 8 A. To my satisfaction.
- 9 Q. Fine. And I take it that you understood that
- 10 you weren't the only physician in the country who
- 11 thought that it had been established to that
- 12 individual satisfaction?
- 13 A. No, I -- I think that the majority of physicians
- 14 and investigators had that opinion.
- 15 Q. And a number of the investigators had been
- 16 funded by various funding organizations?
- 17 A. That's true.
- 18 Q. And a number of the funding organizations for
- 19 the investigators felt that the link had been
- 20 established to the satisfaction of those
- 21 organizations; true?
- 22 A. When you say the "organizations" --
- 23 Q. The funding organizations.
- 24 A. -- the funding organizations fund research based
- 25 upon the decisions of their consultants who form

- 1 these advisory or review committees, so you -- you
- 2 can't say that -- shall I -- let's take the National
- 3 Cancer Institute made the funding decision because
- 4 the National Cancer Institute thought one thing or
- 5 another. The members of the review committees
- 6 establish priorities to fund grants based upon their
- 7 individual assessment of the relevance, the novelty,
- 8 the accuracy of the methodology and so on of the
- 9 grant. There's another factor that enters into
- 10 this. Any review committee, such as the SAB, but
- 11 certainly not restricted to it, deals only with the
- 12 applications that they receive, and if these
- 13 applications change, the nature of the grants that
- 14 are funded will also change, so that as investigators
- 15 in general change their focus because of develop --
- 16 larger developments in biomedical research, the
- 17 nature of the applications to any funding agency will
- 18 change without any change in that agency. It's
- 19 because the investigators in different parts of the
- 20 country, Massachusetts, and New York, and California,
- 21 come to the conclusion that the way to attack this
- 22 problem is through basic research or statistical or
- 23 epidemiology or what have you. So the SAB, similar
- 24 to review groups of the NIH and American Heart and
- 25 American Cancer Society, deal with the applications

- 1 that they get and assign priorities. This change in
- 2 the nature of the research is not determined by
- 3 either the CTR or the Scientific Advisory Board. It
- 4 is a function of the overall change in the direction
- 5 of biomedical research in the country and in the
- 6 universities and medical schools.
- 7 Q. Dr. Rubin, my question is a more narrow one.
- 8 It's your understanding; is it not, that the
- 9 management of funding organizations attempt to stay
- 10 generally aware of the research projects that are
- 11 developed with their money?
- 12 MR. ALLINDER: Objection.
- 13 A. I've never been in that situation personally. I
- 14 -- I've only been at the other end of the review
- 15 groups.
- 16 Q. Well, for instance, the American Cancer Society
- 17 or the National Cancer Institute, those organizations
- 18 have some type of executive management; do they not,
- 19 as far as you understand?
- 20 A. As far as I understand they do.
- 21 Q. And they have some time of board of trustees or
- 22 board of directors that would be establishing policy
- 23 for the organization?
- 24 A. You'll have to tell me what you mean by policy.
- 25 Q. In the same fashion that a board of directors of

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- 1 any company establishes some policies, objectives,
- 2 for the company to pursue?
- 3 A. Well I think you -- you've got it wrong. I
- 4 think -- I think you are confusing the goals and
- 5 objectives of profit-making corporations and the
- 6 goals of research-funding agencies.
- 7 Q. Let's limit it to nonprofit --
- 8 A. Its not the same thing.
- 9 Q. Let's limit it to nonprofit corporations, such
- 10 as the American Cancer Institute. Would you expect
- 11 --
- 12 A. I'm not familiar with that organization; --
- 13 Q. Simply based upon your experience as a
- 14 physician.
- 15 A. -- American Cancer Institute?
- 16 Q. Society, American Cancer Society. Would you
- 17 imagine that the employees, the management employees
- 18 of that organization tended to keep abreast of the
- 19 research findings that are made with their dollars?
- 20 MR. PURDY: Object to the form.
- 21 A. I don't have any personal knowledge of what the
- 22 directors of the American Cancer Society do. It
- 23 probably would be inappropriate for me to comment on
- 24 something on which I'm totally not aware.
- 25 Q. Would you have expected, since you now have some

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- 1 awareness of CTR, that its management would have kept
- 2 itself aware at least to some degree of the results
- 3 of the research that it was funding?
- 4 MR. PURDY: Objection, argumentative.
- 5 A. Well I wouldn't be surprised if they did, but
- 6 that's not part of my charge.
- 7 Q. I understand that. But you would be highly
- 8 surprised if an organization that was funding
- 9 research took utterly no interest in the outcome of
- 10 the research; would you not?
- 11 MR. ALLINDER: Objection.
- 12 A. Well, you have many words there that are really
- 13 imprecise, and to answer your question in the global
- 14 sense might not really be appropriate, but let me
- 15 explain. The --
- 16 Q. Let me just --
- 17 A. The board of.
- 18 Q. -- withdraw that question then and ask another
- 19 one.
- 20 A. Okay. Would you excuse me for a moment?
- MR. PURDY: We need a break.
- MR. ALLINDER: Oh, I'm sorry.
- 23 (Recess from 9:51 to 9:59 a.m.)
- 24 BY MR. GILL:
- 25 Q. Now as I understand it, Dr. Rubin, in

- 1 investigating the published research results of the
- 2 CTR grant program, you found a number of those
- 3 projects that implicated smoking as a cause of
- 4 disease; is that correct?
- 5 MR. ALLINDER: Objection.
- 6 A. That is correct.
- 7 Q. And if the management of CTR was reviewing the
- 8 work of their grant investigators, then presumably
- 9 the management of CTR would have been aware of those
- 10 findings; true?
- 11 A. The findings are reported every year in the
- 12 annual reports and are a matter of public record.
- 13 Q. And in fact the annual report is a synopsis of
- 14 the findings of the research projects, in part; is it
- 15 not?
- 16 A. That is correct.
- 17 Q. Presumably in order to prepare a synopsis
- 18 somebody has to read the report.
- 19 MR. ALLINDER: Objection.
- 20 Q. True?
- 21 A. I don't recall whether the information contained
- 22 relating to each paper was derived strictly from the
- 23 abstract published with the paper or whether it
- 24 represented a further abstraction; I don't recall
- 25 that.

- 1 Q. Or whether the summary represented a synopsis of
- 2 the full report based upon the review of the author
- 3 of the summary?
- 4 MR. ALLINDER: Objection.
- 5 A. Let me explain. The format of papers in the
- 6 biomedical literature usually includes an abstract of
- 7 the paper at the beginning. That's the way it's
- 8 published in the journal. I don't really recall
- 9 whether the summary that is included in the annual
- 10 reports simply is that abstract or whether it
- 11 represents some further abstraction or modification;
- 12 I just don't recall that.
- 13 Q. Is it your understanding that the annual reports
- 14 of CTR and its predecessor were prepared by the staff
- 15 of CTR?
- 16 A. I -- I never went into that topic.
- 17 Q. You wouldn't expect the members of the
- 18 Scientific Advisory Board to create the annual report
- 19 of the organization, would you?
- 20 A. I don't believe they would, no.
- 21 Q. Nor would you expect the members of the
- 22 Scientific Advisory Board to prepare a synopsis or
- 23 summary of the research projects that were undertaken
- 24 that year?
- 25 A. I don't believe that's their function.

- 1 Q. And if -- if -- if they don't do it, that would
- 2 basically leave employees of CTR to do it?
- 3 A. I would expect that.
- 4 Q. And you would expect management of CTR to be
- 5 generally aware of the research reports that have
- 6 been summarized in their annual report?
- 7 MR. ALLINDER: Objection.
- 8 A. Well, to tell you the truth, I am not aware of
- 9 the sophistication of the lay members of the CTR
- 10 administrators who were not physicians or scientists,
- 11 so I don't really have any personal information as to
- 12 how much they understood of the nature of the data or
- 13 the results of these investigations. It's not
- 14 something that I know enough to comment upon.
- 15 Q. How about the scientific director of the SAB of
- 16 the CTR, would you expect that that individual would
- 17 have sufficient qualifications to review the
- 18 summaries of the grants in the annual report and
- 19 understand what he's reading?
- 20 A. I would think so.
- 21 Q. And would you expect that the scientific
- 22 director of the SAB would have reviewed the research
- 23 reports that were generated with CTR funding?
- 24 A. I would assume. Again it's not an area that I
- 25 have any particular knowledge. I have not

- 1 interviewed the scientific directors, but it doesn't
- 2 seem unreasonable what you're saying.
- 3 Q. And if the scientific directors of the CTR had
- 4 reviewed the research reports that were funded by
- 5 CTR, they would have come across some of the same
- 6 studies that you did that implicated smoking with
- 7 cancer and other diseases; true?
- 8 A. That's true.
- 9 Q. Now are you aware of any of the various doctors
- 10 that have served as scientific director of the SAB
- 11 ever acknowledging that smoking was a cause or one of
- 12 the contributing causes to lung cancer or any other
- 13 disease?
- 14 A. Again, you get to the semantics of "cause". It
- 15 is my understanding that the president or current
- 16 president or scientific directors have long
- 17 acknowledged that epidemiologic data have established
- 18 that cigarette smokers are at substantially greater
- 19 risk of developing various diseases, including lung
- 20 cancer. Their posture has been I believe this: That
- 21 epidemiologic associations or statistical links do
- 22 not establish causation, and that causation requires
- 23 experimental data or proof. So it becomes a semantic
- 24 problem. In one -- in one sense they are correct.
- 25 That epidemiologic data provide associations; that's

- 1 the nature of the beast. Some people would say that
- 2 the strength of these associations and a number of
- 3 other factors; biological, plausibility, coherence,
- 4 uniformity, et cetera, et cetera, criteria, when all
- 5 of these are sufficiently established can be
- 6 considered to indicate a cause and effect
- 7 relationship. Other people who are equally sincere
- 8 would say that that always remains an association and
- 9 that causation is then established by physical actual
- 10 demonstration in experimental animals. He pays you
- 11 money and he takes your choice.
- 12 Q. Well. Doctor you assume that others maybe
- 13 equally sincere, but naturally you have no way of
- 14 knowing whether or not they're actually sincere, do
- 15 you?
- MR. ALLINDER: Objection.
- 17 MR. PURDY: Yeah, objection.
- 18 A. I am not Sigmund Freud. I do not deal with
- 19 motivation and sincerity. I assume in general that
- 20 the people that I deal with are sincere, and I would
- 21 maintain that posture unless presented with evidence
- 22 to the contrary.
- 23 Q. Now you've told me that you understand that
- 24 various scientific directors of the SAB at CTR have
- 25 acknowledged the existence of epidemiological studies

- 1 that have implicated smoking with lung cancer and
- 2 other diseases; correct?
- 3 MR. PURDY: Let me just object to the
- 4 form. I didn't mean to interrupt, Doctor.
- 5 Q. Now aside from acknowledging that those studies
- 6 are out there, do you know of any scientific director
- 7 of the SAB at CTR that has ever on behalf of CTR
- 8 acknowledged the credibility of those epidemiological
- 9 reports as satisfying the organization that the link
- 10 between smoking and cancer and other diseases has
- 11 been satisfactorily established?
- MR. PURDY: Object to the form.
- 13 MR. ALLINDER: Objection, asked and
- 14 answered.
- 15 THE WITNESS: Instruct me. Am I supposed
- 16 to answer?
- MR. PURDY: Oh, yes.
- 18 MR. ALLINDER: Yes, absolutely.
- MR. GILL: Yes. Oh, yeah, you are, Doctor.
- 20 MR. ALLINDER: Do you understand the
- 21 question? Answer the question.
- 22 A. Well it was a long question, a lot of
- 23 subordinating clauses. I've had the occasion to read
- 24 depositions of Dr. Glenn, who is president of the SAB
- 25 who unquestionably acknowledges the greater risk of

- 1 lung cancer among smokers. I think he considers
- 2 smoking a risk factor for lung cancer, or perhaps the
- 3 major risk factor for lung cancer. I've read
- 4 depositions of Dr. McAllister who has the same
- 5 opinion. I think Dr. McAllister is scientific
- 6 director or something like that. I believe I have
- 7 come across information that indicate to me that
- 8 previous scientific directors have also acknowledged
- 9 the strength of these associations. What they have
- 10 done is categorized smoking as a risk, as a
- 11 demonstrated risk factor, but have insisted that
- 12 causation be proved by experimental means.
- 13 Q. Do any specific documents come to your mind in
- 14 connection with that last statement?
- 15 A. As I said, I've reviewed dep -- depositions that
- 16 I have read indicate that to me in -- in unequivocal
- 17 terms.
- 18 Q. Do you know whether the Glenn and McAllister
- 19 depositions to which you just referred have been made
- 20 publicly available.
- 21 A. I have no knowledge of this.
- 22 Q. Now assuming that those deposition transcripts
- 23 may be under seal and have not been made publicly
- 24 available by the tobacco companies or CTR, do you
- 25 know of any other public statements that either Dr.

- 1 Glenn or Dr. McAllister have made that acknowledge
- 2 the cause and effect relationship between tobacco
- 3 smoking and cancer?
- 4 MR. ALLINDER: Objection to the form.
- 5 A. Well to tell you the truth, I -- I have not
- 6 followed their public statements, and I'm not
- 7 qualified to answer that question.
- 8 Q. During the course of your investigation in this
- 9 case how did you gain access to the documents that
- 10 you reviewed?
- 11 A. When you say "documents," all the documents that
- 12 I have reviewed?
- 13 Q. Yes. Where did they come from? How did you
- 14 obtain access to them?
- 15 A. In my initial meetings with Mr. Allinder he
- 16 asked me to identify materials that I thought I would
- 17 need for my analysis.
- 18 Q. And he then provided you with documents that as
- 19 far as you could tell met the descriptions that you
- 20 had given him?
- 21 A. Well I gave him certain specific items such as
- 22 annual reports and other data, other materials, and I
- 23 also requested that as material became available that
- 24 would either give me new information or different
- 25 information bearing on the CTR or that might provide

- 1 me with some greater feeling for the environment or
- 2 ambience in -- surrounding these events, that he make
- 3 me aware of these, and so that the information has
- 4 come from his office at my request.
- 5 Q. And I take it the documents that you were
- 6 requesting were those documents that you felt might
- 7 fall within the ambit of investigating the allegation
- 8 that CTR was not a legitimate funding organization?
- 9 A. That's fair.
- 10 Q. Now, and I take it that beyond what you've
- 11 requested of Mr. Allinder he at some point made some
- 12 additional documents available to you that met your
- 13 general request for updates or supplementation?
- 14 A. That's correct.
- 15 Q. Did you ask to see any of the press releases
- 16 that TIRC and CTR have issued to the -- to the public
- 17 since 1954?
- 18 A. No.
- 19 Q. To this day have you reviewed any of those
- 20 organizations' press releases?
- 21 A. Yes.
- 22 Q. How did you happen to review them?
- 23 A. Mr. Allinder and his staff were in possession of
- 24 a list of documents that were provided by the
- 25 Plaintiffs' counsel in Minnesota for the purpose of

- 1 this deposition. Those documents were then made
- 2 available to me.
- 3 Q. And some of those documents included press
- 4 releases?
- 5 A. Yes.
- 6 Q. I take it you reviewed them?
- 7 A. I reviewed them, yes.
- 8 Q. Did your review of those -- Now the opinions
- 9 that you've reached in this case as contained in your
- 10 report were all reached prior to the time that you
- 11 saw any of those press releases; true?
- 12 A. That's correct.
- 13 MR. ALLINDER: Objection to the form.
- 14 Q. Did the review of the press releases change any
- 15 of your opinions?
- 16 A. Not at all.
- 17 Q. Have any of your opinions changed since the time
- 18 that you wrote your Expert Report in the Minnesota
- 19 case?
- 20 A. No.
- 21 Q. And there are no supplementary opinions that
- 22 you've reached as of this time at least that I could
- 23 not find if I reviewed carefully your Expert Report
- 24 in the Minnesota case; is that correct?
- 25 A. That's correct.

- 1 Q. Did you notice that a number of the press
- 2 releases issued by TR -- TIRC quoted Dr. Clarence
- 3 Cook who was the scientific director of the SAB
- 4 between 1954 and 1971 or 72?
- 5 MR. ALLINDER: Objection.
- 6 A. Are you referring to Dr. Little?
- 7 Q. I'm sorry. Dr. Clarence Cook Little I believe
- 8 is his name. Yes, I am.
- 9 A. Yes.
- 10 Q. In the press releases issued by the TIRC quoting
- 11 Dr. Little, he doesn't acknowledge any relationship
- 12 between tobacco use and cancer or other disease, does
- 13 he?
- MR. ALLINDER: Object to the form.
- MR. PURDY: Further object that the
- 16 documents speak for themselves. Go ahead, Doctor.
- 17 I'm sorry.
- 18 A. The truth of the matter is I have not spent a
- 19 lot of time examining those documents. I have seen
- 20 press releases as part of the material that was made
- 21 available to me to the effect that Dr. Little did not
- 22 acknowledge a link or did not accept a link between
- 23 smoking as a cause of lung cancer.
- 24 Q. He didn't do either, did he; he neither
- 25 acknowledged nor accepted such a link; correct?

- 1 MR. ALLINDER: Object to the form.
- 2 A. You'll have to give me the release you're
- 3 talking about because I think that Dr. Little
- 4 acknowledged that there was a controversy, meaning
- 5 that there was information out there to the effect
- 6 that smokers were at risk for lung cancer, but that
- 7 he did not accept it as proved.
- 8 Q. Or valid?
- 9 A. Well proved or valid would be the same thing.
- 10 Q. Now Dr. Cook -- Dr. Little -- excuse me -- Dr.
- 11 Little served in this capacity during the very years
- 12 where you found a number of research publications
- 13 that had been funded by CTR that you felt established
- 14 the link.
- MR. ALLINDER: Object to the form.
- 16 Q. True?
- 17 A. Well, I don't think that the epidemiologic link
- 18 between smoking and cancer depended on work by CTR.
- 19 I think it was actually principally the work of other
- 20 investigators in -- in the field.
- 21 Q. So the work --
- 22 A. There --
- 23 Q. -- done by CTR --
- MR. ALLINDER: Excuse me. Have you
- 25 finished?

- 1 THE WITNESS: Yes.
- 2 Q. So the work done by CTR investigators with
- 3 regard to establishing the link between smoking and
- 4 cancer was actually only a very small part of the
- 5 overall work that did so; --
- 6 MR. ALLINDER: Object to the form.
- 7 Q. -- is that what you're saying?
- 8 MR. ALLINDER: Same objection.
- 9 A. The work of CTR in the entire field of smoking
- 10 and health has been only a small part at all times of
- 11 the world effort in investigating tobacco and
- 12 health. The amount of money provided by CTR I
- 13 believe has been dwarfed by money coming from the
- 14 National Cancer Institute, American Cancer Society,
- 15 and et cetera, et cetera. So in that sense the work
- 16 on the epidemiology of cancer and smoking supported
- 17 by CTR is a very small part of the total effort.
- 18 Q. So it's your understanding that the research
- 19 into the relationship between tobacco use and cancer
- 20 has been supported far more vastly by the public than
- 21 by the tobacco companies; true, through CTR?
- MR. ALLINDER: Object to the form.
- 23 MR. PURDY: Object to the form.
- 24 A. Well I don't know. When you say "public," by
- 25 other agencies or by other institutions, yes, I think

- 1 that --
- 2 Q. And those would be publicly; supported, would
- 3 they not?
- 4 A. Well --
- 5 MR. PURDY: Object to the form.
- 6 A. I don't have any problems with calling it
- 7 publicly supported. I mean the -- the first -- you
- 8 know, the first major study that achieved at the time
- 9 worldwide publicity, and justifiably so, was not from
- 10 the United States, it was from England, it was Doll
- 11 and Hill, I think, so, you know, the United States is
- 12 not alone in studying these issues.
- 13 Q. But accepting your characterization that the
- 14 research work done through the CTR or funded by the
- 15 CTR was only a very small piece of the overall pie,
- 16 nevertheless, within that piece you found a number of
- 17 research reports that as far as you could tell
- 18 strengthened the case that cigarette use caused
- 19 cancer and other diseases.
- 20 MR. ALLINDER: Object to the form.
- 21 Q. True?
- MR. ALLINDER: Same objection.
- 23 A. I think it's true.
- 24 Q. And if Dr. Little, as the scientific director --
- 25 let me strike that question.

- 1 And the reports that you reviewed in order to
- 2 reach that opinion were research reports that were
- 3 generated before 1970; correct, by and large?
- 4 MR. ALLINDER: Object to the form.
- 5 A. I don't recall the exact dates, but I think
- 6 before 1970 there was a -- a substantial body of work
- 7 that had been done by CTR-funded investigators in
- 8 these areas.
- 9 Q. And if Dr. Cook as the scientific director of
- 10 the SAB had reviewed those research reports, he would
- 11 have had the same information that you gained by
- 12 reviewing; correct?
- 13 A. He would have had the same information.
- 14 Q. Have you ever seen any public statement by Dr.
- 15 Cook --
- MR. ALLINDER: Excuse me, it's Little.
- 17 MR. GILL: I'm sorry.
- 18 MR. ALLINDER: That's all right. Just keep
- 19 the record clear.
- MR. GILL: Thank you.
- 21 Q. Have you ever seen any public statement by Dr.
- 22 Little acknowledging the findings of those reports?
- 23 A. The only public statements of Dr. Little that
- 24 I've had access to are those that were presented to
- 25 me in the context of this deposition. So I'm not

- 1 aware of the entire universe of Dr. Little's public
- 2 posture.
- 3 Q. You didn't ask Mr. Allinder to supply you with
- 4 any documents that would shed any light on that
- 5 particular matter?
- 6 MR. ALLINDER: Object to the form.
- 7 Q. True?
- 8 MR. ALLINDER: Same objection.
- 9 A. No, I did not.
- 10 Q. And with respect to the press release documents
- 11 that you reviewed relative to preparing for this
- 12 deposition as designated by the State of Minnesota,
- 13 you didn't find anything in those press releases in
- 14 which Dr. Little acknowledged the findings of those
- 15 reports implicating smoking with cancer?
- MR. ALLINDER: Object to the form.
- 17 Q. True?
- 18 A. That is true.
- 19 Q. Now the research reports that you reviewed
- 20 certainly would have been available to members of the
- 21 scientific community once they were published; true?
- 22 A. They're in the public domain.
- 23 Q. And in terms of your experience with the scope
- 24 of review that scientific documents generally get,
- 25 would you agree with me that the audience for reading

- 1 and understanding scientific research studies is a
- 2 relatively narrow one?
- 3 MR. ALLINDER: Excuse me.
- 4 MR. PURDY: Object to the form.
- 5 MR. ALLINDER: May I listen to the
- 6 question?
- 7 (The record was read by the reporter.)
- 8 A. That's a hard question to answer. "Narrow" is a
- 9 relative term. I -- you can speak of a small
- 10 molecule or a small star. In the --
- 11 Q. Let me try to help.
- 12 A. -- biomedical community there is a broad
- 13 audience; compared to the audience of Playboy
- 14 magazine it may be a narrow one.
- 15 Q. So there's a broad audience in the biomedical
- 16 community for reading and understanding research
- 17 studies?
- 18 A. That's correct.
- 19 Q. Now the biomedical community would be only a
- 20 small segment of the public at large; true?
- 21 A. That's a reasonable statement.
- 22 Q. And you wouldn't -- perhaps the most well-known
- 23 medical journal would be the New England Journal of
- 24 Medicine, if not most well-known, one of the most
- 25 well-known?

- 1 A. One of the most well-known, yes.
- 2 Q. You wouldn't expect that the circulation of the
- 3 New England Journal of Medicine would be as broad as
- 4 that of the New York Times?
- 5 A. Well it's the same order of magnitude. It's I
- 6 think over 200,000 for the New England Journal, New
- 7 York Times is about a million or so, so it's the same
- 8 order of magnitude.
- 9 Q. How about, is the New York Times -- you -- did
- 10 you grow up in New York?
- 11 A. Well I happen to have been born there but I was
- 12 snatched way at the age of six months and --
- 13 Q. Did you grow up in Phil -- in Pennsylvania?
- 14 A. I grew up in Atlantic City, but before the
- 15 advantages of gambling.
- 16 Q. Did you read New York daily newspapers growing
- 17 up in Atlantic City?
- 18 A. I was a precocious child. I read both
- 19 Philadelphia and New York newspapers.
- 20 Q. You wouldn't expect that the general public
- 21 would be as aware of what's published in the New
- 22 England Journal of Medicine as the general public
- 23 would be of what's published in their $\operatorname{--}$ in urban
- 24 newspapers, --
- MR. ALLINDER: Object to --

- 1 Q. -- would you?
- 2 MR. ALLINDER: Object to the form.
- B A. Well the major papers of the New England Journal
- 4 of Medicine are generally published in the lay
- 5 press. I've published personally quite a few times
- 6 in the New England Journal of Medicine and I can tell
- 7 you I always give interviews to reporters after the
- 8 so-called embargo date has been reached so that the
- 9 major papers in JAMA, J-A-M-A, New England Journal,
- 10 make -- do make their way to the public press.
- 11 Q. At least from time to time?
- 12 A. Yes.
- 13 Q. That wouldn't be true of -- of the vast majority
- 14 of medical journals, would it?
- MR. ALLINDER: Object to the form.
- 16 A. It would not be true.
- 17 Q. And certainly the -- when, if we attempted to
- 18 add up the circulations of say the largest 400
- 19 newspapers in the country, that would dwarf the
- 20 circulation of the New England Journal of Medicine or
- 21 any of these other medical journal publications;
- 22 true?
- MR. ALLINDER: Object to the form.
- 24 A. Well you're -- you're asking me subjects of
- 25 general knowledge, not any particular expert

- 1 knowledge on my part.
- 2 Q. I agree.
- 3 A. But it would seem to me reasonable to assume
- 4 that you're correct.
- 5 Q. Now a press release when that's issued is
- 6 intended to have as wide a scope of coverage as
- 7 possible?
- 8 MR. ALLINDER: Object.
- 9 Q. That would generally be true; would it not?
- 10 MR. ALLINDER: Object to the form.
- 11 A. I don't think I can comment on public relations;
- 12 it's not my area.
- 13 Q. You have no expertise at all, don't claim to
- 14 have any expertise at all with respect to the
- 15 workings of public relations?
- 16 A. No. I don't know anything about it.
- 17 Q. Did you understand that when TIRC in the days of
- 18 Dr. Little issued a press release that those press
- 19 releases were being picked up, at least to some
- 20 extent, in major metropolitan newspapers around the
- 21 country?
- MR. ALLINDER: Object to the form.
- 23 A. I wouldn't be surprised if they were, but I
- 24 don't have any personal knowledge.
- 25 Q. Did the press releases that you reviewed in

- 1 connection with this deposition state positions on
- 2 behalf of TIRC and later CTR relative to the issue of
- 3 smoking and health?
- 4 A. You'll have to show me the release.
- 5 Q. We'll probably get to that at some point, but
- 6 I'm just wondering based upon your -- your -- the
- 7 extent to which you reviewed those press releases, do
- 8 you recall one way or the other whether such
- 9 positions were included?
- 10 A. I -- I'd prefer to see it and not make some
- 11 statement that I'll have to deny later on.
- 12 Q. All right. Would it be fair to say you just
- 13 wouldn't be sure about that until you had another
- 14 chance to look at the press releases themselves?
- 15 A. That's correct.
- 16 Q. And I -- I think you told me, Dr. Rubin, that
- 17 your review of the press releases was relatively
- 18 cursory?
- 19 A. Yes.
- 20 Q. Now one of the opinions that I believe you
- 21 formed and have expressed in your Expert Report is
- 22 that you didn't find any evidence of suppression of
- 23 publication of research results by CTR?
- MR. ALLINDER: Object to the form.
- 25 Q. Is that a fair way to put it?

- 1 A. That's fair.
- 2 Q. And your criterion for investigating whether or
- 3 not suppression had occurred was based upon reviewing
- 4 the -- the studies that were actually published?
- 5 MR. ALLINDER: Object to the form.
- 6 A. There have been more than 6000 papers published
- 7 that have acknowledged funding by CTR. I do not want
- 8 to give you the impression that I have carefully read
- 9 6000 or more papers, but based on my review of a
- 10 large number of these papers, the journals in which
- 11 they appear, the coworkers, the other funding, did
- 12 not appear to me that there had been any suppression
- 13 at all.
- 14 Q. Did you talk to or contact any of the grantees
- 15 or authors of these studies?
- 16 A. No.
- 17 Q. Did you contact any current or former employee
- 18 of CTR in connection with that investigation?
- 19 A. No.
- 20 Q. Did you contact any current -- any former
- 21 employee of TIRC in connection with that
- 22 investigation?
- 23 A. No.
- 24 Q. Other than determining that there were over 6000
- 25 studies published that acknowledged some type of CTR

- 1 funding and being satisfied with the overall quality
- 2 of those publications, what else did you do to
- 3 investigate any allegation that CTR had attempted to
- 4 suppress the results of those studies?
- 5 A. I reviewed a number of depositions by grantees
- 6 -- depositions is -- may not be the correct thing --
- 7 affidavits by -- or some type of --
- 8 Q. Sworn statement.
- 9 A. -- sworn statement by grantees.
- 10 Q. Which ones?
- 11 A. Well, I don't remember exactly. I don't
- 12 remember exactly which ones. They were half a dozen.
- 13 Q. Do you remember any of them?
- 14 A. I think Dr. William Gutstein had one.
- 15 G-u-t-s-t-e-i-n.
- 16 Q. Any others that come to mind?
- 17 A. They don't come to mind, but I can find them in
- 18 --
- 19 Q. Go ahead then.
- 20 A. -- in some notes of mine.
- 21 Q. I was just interjecting that.
- 22 A. There were sworn statements by grantees that
- 23 they were encouraged to publish their results, that
- 24 they had complete independence, and that they
- 25 exercised it. I have also come across information

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- 1 either in depositions or sworn statements, I don't
- 2 recall right now, from administrative members of the
- 3 SAB, perhaps -- perhaps Dr. McAllister, to the effect
- 4 that grantees had complete independence to pursue
- 5 their investigation, complete freedom to publish
- 6 where and when they wanted, and were encouraged not
- 7 only to publish but to acknowledge funding by CTR.
- 8 Q. Did that complete freedom include the freedom to
- 9 publish what they wanted to publish?
- 10 A. It is my understanding that that included what
- 11 they wanted to publish and the way that they wanted
- 12 to publish it where they wanted to publish it.
- 13 Q. You wouldn't expect anything less from a
- 14 legitimate funding organization, would you?
- 15 A. I would not expect less.
- 16 Q. Please continue with the other criteria that you
- 17 employed in this particular aspect of your
- 18 investigation?
- 19 MR. ALLINDER: Excuse me. Could you
- 20 clarify again what "this aspect" is, what you're
- 21 asking about?
- MR. GILL: Whether there was suppression.
- MR. ALLINDER: Thank you.
- 24 A. There -- there is a conspicuous absence of
- 25 complaints from perhaps over a thousand, 1100, some

- 1 large number of investigators who were funded by CTR
- 2 that they were in any way censored or that the
- 3 conditions attached to funding by CTR were any
- 4 different from those provided by other funding
- 5 organizations, such as the NIH or the American Cancer
- 6 Society. That in itself tells you something.
- 7 Moreover, almost all of these papers that were funded
- 8 by CTR were multi-authored papers. They had three,
- 9 four, or more authors in many instances. I would
- 10 have expected, had there been suppression or
- 11 censorship, that among these three or four thousand
- 12 or more coauthors that -- most of whom are cranky,
- 13 individualistic types characteristic of research,
- 14 there would have been a human cry about censorship or
- 15 some other inappropriate suppression of data. The
- 16 fact that you are dealing with quite a few thousand
- 17 investigators, none of whom have complained about
- 18 censorship or suppression, I think is a very strong
- 19 indication that it did not exist.
- 20 Q. Now do I recall correctly that you found the
- 21 funding for CTR research grew significantly in the
- 22 70s, 80s, and 90s, compared to what it was in the 50s
- 23 and 60s?
- MR. ALLINDER: Objection.
- 25 A. I think it did.

- 1 Q. Would you expect that with significantly greater
- 2 funding there would be significantly more research
- 3 studies being published?
- 4 MR. ALLINDER: Object to the form.
- 5 A. That's not a necessary corollary. There has
- 6 been substantial inflation of medical costs and all
- 7 funding agencies, certainly including the NIH, have
- 8 seen the costs of projects increase and sometimes it
- 9 seemed exponentially, so that it's not a necessary
- 10 corollary.
- 11 Q. I understood that you reviewed a number of the
- 12 annual reports of TIRC and CTR?
- 13 A. I did.
- 14 Q. Did you review all of that? Or at least most of
- 15 it?
- 16 A. I think I -- I think I reviewed all of them.
- 17 Until 96.
- 18 Q. And I take it that your review focused at least
- 19 in part on the description of the research studies
- 20 that had been funded or published in a given year?
- 21 A. I reviewed those.
- 22 Q. Now based upon that review, did the number of
- 23 research projects funded increase dramatically some
- 24 time around 1970?
- MR. PURDY: Object to the form.

- 1 MR. ALLINDER: Object to the form.
- 2 A. Well I'd have to --
- 3 Q. Well let me try it this way: --
- 4 A. -- I'd have to review it. I can't give you an
- 5 answer because I just don't remember.
- 6 Q. If we took the last five years in terms of
- 7 approximately how many research projects were
- 8 referenced in the annual reports of CTR --
- 9 A. I don't know.
- 10 Q. -- and we compared that to whatever's referenced
- 11 in the first five years of TIRC, would there be more?
- 12 A. I would think that there would be more, but my
- 13 -- I'd have to review it to give you a -- an
- 14 accurate answer.
- 15 Q. I understand, and I'm not trying to limit you
- 16 here, Dr. Rubin, but I'm just trying to get at what
- 17 at least strikes me as rational that if the tobacco
- 18 industry is providing \$40 million for CTR-funded
- 19 research in a given year in the 90s versus \$500,000
- 20 of -- of grant money in the 50s that there's likely
- 21 to be more studies generated by the 40 million than
- 22 by the 500,000 even when we factor inflation in?
- 23 MR. PURDY: Object to the form.
- MR. ALLINDER: Object --.
- MR. PURDY: It's argumentative and the

- 1 documents speak for themselves.
- 2 MR. ALLINDER: So --
- 3 Q. Does that sound generally reasonable to you,
- 4 Doctor?
- 5 MR. ALLINDER: -- object to the form.
- 6 A. It does sound reasonable, but the fact, you
- 7 know, Res ipsa loquitur. Facts will have to speak
- 8 for themselves. If you bring them in I'll look at
- 9 them.
- 10 Q. And as I understand, your review of the -- this
- 11 research indicated that at least after 1970 very
- 12 little of the CTR-sponsored research related to
- 13 tobacco use as a contributing factor to disease?
- MR. ALLINDER: Object to the form.
- 15 Q. True?
- 16 A. Untrue.
- 17 Q. Well related at least directly to tobacco use --
- 18 MR. ALLINDER: Same objection.
- 19 Q. -- -- as a contributing factor?
- 20 MR. ALLINDER: Excuse me. Same objection.
- 21 A. Well I'm not going to accept that. I'm
- 22 perfectly prepared to tell you why I don't accept
- 23 that.
- 24 Q. Okay. Let me try to rephrase it then.
- 25 After 1970 does your review indicate that most

- 1 of the CTR-sponsored research related to matters
- 2 dealing with the etiology of disease?
- 3 MR. ALLINDER: Object to the form.
- 4 A. With the etiology of diseases that had been
- 5 linked to tobacco use.
- 6 Q. And --
- 7 A. In other words, I didn't see very much or any
- 8 papers dealing with the etiology of hemorrhoids or
- 9 athlete's foot.
- 10 Q. But etiology of various forms of cancer and
- 11 etiology of cardiovascular disease?
- 12 A. And pulmonary disease.
- 13 Q. And diseases falling within those broad
- 14 categories are diseases that have been linked to
- 15 smoking?
- 16 A. That's correct.
- 17 Q. Now, you're not aware of any -- based upon the
- 18 review of documents that you have made in this case,
- 19 I think you're telling me you're not aware of any
- 20 author of a CTR-sponsored research study dealing with
- 21 the etiology of diseases who complained that his or
- 22 her research was censored in any way?
- 23 A. Well, there was one gentleman in the early 70s
- 24 who complained indeed, a man by the name of
- 25 Homburger, so you did have one person out of some

- 1 1100 who did complain.
- 2 (Reporter interruption.)
- 3 (Recess from 10:50 to 10:53 a.m.)
- 4 BY MR. GILL:
- 5 Q. Now Dr. Homburger's research was a little
- 6 narrower than the etiology of lung cancer; true?
- 7 MR. ALLINDER: Object to the form.
- 8 A. As I understand it, he had a contract to develop
- 9 a model of lung cancer produced by inhalation of
- 10 smoking hamsters. That was the contract, as I
- 11 understand it.
- 12 Q. And what the -- the smoking hamsters of course
- 13 were inhaling tobacco smoke?
- 14 A. They were.
- 15 Q. So Dr. Homburger, who was someone who complained
- 16 about being censored, was dealing with a research
- 17 study that might have directly implicated tobacco
- 18 smoke with lung cancer; true?
- MR. ALLINDER: Object to the form.
- 20 A. It was designed to do that.
- 21 Q. And Dr. Homburger, at least according to
- 22 testimony or documents that you've reviewed, felt
- 23 that his efforts to publish the results of his study
- 24 were censored in some way by representatives of CTR;
- 25 true?

- 1 A. Not true.
- 2 Q. Isn't that what Dr. Homburger felt?
- 3 A. Dr. Homburger felt that attempt had been made
- 4 hinder the publication of his results, but they were
- 5 published certainly in the JNCI.
- 6 Q. All right. Now aside altogether from whether or
- 7 not Dr. Homburger managed to get his results
- 8 published, you certainly wouldn't condone a funding
- 9 organization attempting to hinder a research grantee
- 10 from publishing the results of a study in the form
- 11 that the grantee thought was appropriate, would you?
- 12 A. I think that you are mistaking the conditions of
- 13 a research grant-in-aid and a contract. Those are
- 14 two different vehicles for funding research --
- 15 Q. Is it your understanding --
- 16 A. -- and have different criterion.
- 17 Q. Is it your understanding that Dr. Homburger was
- 18 pursuing a -- a contract research study for CTR as
- 19 opposed to being a grant recipient, in connection
- 20 with his complaints?
- 21 A. I think so.
- 22 Q. Have you ever testified to a different
- 23 understanding?
- 24 A. No.
- 25 Q. Would it make any difference with respect to the

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- 1 aspect of hindering publication if Dr. Homburger were
- 2 working under a contract as opposed to a grant?
- 3 A. Well all of these things are situation driven,
- 4 but the -- a -- by its nature a contract involves
- 5 much more of a relationship with the funding agency
- 6 than does a grant-in-aid.
- 7 Q. So the funding organization would have more
- 8 control over what was actually published to the
- 9 biomedical community with respect to providing
- 10 contract funding than grant funding?
- 11 MR. ALLINDER: Object to the form.
- 12 A. In general that's true.
- 13 Q. Now when you quoted your understanding of Dr.
- 14 McAllister's pronouncements about the complete
- 15 independence of CTR researchers to publish their
- 16 results, did you understand that he was excluding
- 17 from that broad statement contract research?
- 18 A. I haven't given it any thought.
- 19 Q. If he was not, and did not intend, to exclude
- 20 contract research from that statement, then the
- 21 Homburger allegations would be inconsistent with Dr.
- 22 McAllister's view; true?
- MR. ALLINDER: Object to the form.
- 24 A. No, I -- I don't think that -- what I tried to
- 25 indicate is that this is what Dr. Homburger claimed.

- 1 His claims don't mean that they were true. There
- 2 were other people who claimed that it bore no
- 3 relation to the truth. So that in this case the
- 4 proof of the pudding is in the eating. Was the paper
- 5 published, were the data made available, or were they
- 6 not? And the answer is quite clearly that the paper
- 7 was published.
- 8 Q. So are you telling me, Dr. Rubin, that you
- 9 haven't attempted to investigate the validity of Dr.
- 10 Homburger's allegation -- or allegations about
- 11 hindering?
- MR. ALLINDER: Object to the form.
- 13 Q. Is that true?
- MR. ALLINDER: Same objection.
- 15 A. I have seen information regarding Homburger's
- 16 complaints, and I have also seen representations or
- 17 information that what Homburger is saying is simply
- 18 not true and that no one attempted to interfere with
- 19 his scientific freedom, that there were authentic
- 20 questions regarding the validity of his findings or
- 21 his interpretation of those findings, and that the
- 22 dispute was whether or not he, Homburger, had
- 23 accurately depicted the findings, so that there are
- 24 people who vehemently deny that Homburger was
- 25 hindered from doing anything.

- 1 Q. And you don't know whether he was or he wasn't;
- 2 correct?
- 3 A. Personally, no.
- 4 Q. And you haven't been able to determine one way
- 5 or the other from reviewing the data whether he was
- 6 hindered or he wasn't hindered?
- 7 MR. ALLINDER: Object to the form.
- 8 Q. True?
- 9 A. I have examined the paper, and I have come to my
- 10 own conclusions as to what it shows and what it
- 11 doesn't show, but with all of the personal
- 12 interactions at that time are clearly beyond me. I
- 13 have not personally interviewed anyone.
- 14 Q. You have limited your review in this connection
- 15 to the fact that regardless of allegations of
- 16 hindering, publication actually occurred?
- 17 A. That's --
- 18 MR. ALLINDER: Object -- excuse me. Object
- 19 to the form. Go ahead.
- 20 A. Yes, that's correct.
- 21 Q. And normally in the scientific community
- 22 scientists are free to interpret the results of
- 23 scientific studies in different fashions; true?
- 24 A. They are. I mean there are first amendment
- 25 rights in this country; you're free to say anything

- 1 you want. Getting it published is a different
- 2 matter.
- 3 Q. But that's one of the ways that science attempts
- 4 to find the truth is through some sort of a debate
- 5 amongst scientists as to whether or not various
- 6 hypotheses have been satisfactorily established;
- 7 correct?
- 8 A. Generally that's true.
- 9 Q. And certainly the author of a research study
- 10 would be entitled to his or her view of what their
- 11 study means; true?
- 12 A. Yes and no.
- 13 Q. Well --
- 14 A. I mean you're entitled to believe anything you
- 15 want. If you want to believe that the conjunction of
- 16 Pluto and Jupiter causes cancer or that UFOs cause
- 17 cancer, you're free to believe it, but getting it
- 18 published is a different matter, because it has to go
- 19 through peer-review, so that no matter what you
- 20 believe, you may not be able to disseminate your
- 21 belief unless it goes through peer-review, in which
- 22 case it doesn't mean that it's true, but it means at
- 23 least there are some people out there who have read
- 24 what you have written and have come to the conclusion
- 25 that it is publishable. They don't come to the

- 1 conclusion it's true, they come to the conclusion
- 2 it's publishable.
- 3 Q. But understanding everything you say on that
- 4 subject, the author of a study should at least be
- 5 allowed to express his or her interpretation of the
- 6 results as part of the peer-review process; correct?
- 7 A. Well everyone is at liberty to do anything he
- 8 wants that way.
- 9 Q. Okay. And a funding organization ought not to
- 10 stifle the author of a research study from expressing
- 11 his or her interpretation of what they found; true?
- 12 A. "Stifle" is a strong word. Certainly in a
- 13 contract if the data are subject to other
- 14 interpretations, I think that it's entirely
- 15 reasonable to bring that to the attention of the
- 16 author. The author should actually be grateful for
- 17 any further input. Then he is at liberty after
- 18 listening to whatever input there is, he is then at
- 19 liberty to formulate the paper in any way he wants
- 20 and submit it to a journal.
- 21 Q. That's the way it should work?
- 22 A. That's the way it worked here.
- 23 Q. And in terms of the funding organization drawing
- 24 to the author's attention a different interpretation
- 25 of the data, would you typically expect that that

- 1 type of input would come from an attorney on behalf
- 2 of the funding organization?
- 3 A. I don't know that it makes any difference where
- 4 it comes from. I think that an organization that
- 5 gives a contract certainly has every right to have --
- 6 to alert the author or the investigator who has data
- 7 as to any varying interpretations. Then it's -- the
- 8 final responsibility will rest with the author. But
- 9 input can come from any source and indeed frequently
- 10 does today; that's the way it works. Biotech
- 11 companies and all kinds of other organizations that
- 12 give contracts, they -- they have input from lawyers,
- 13 they have input from other scientists, from all kinds
- 14 of people.
- 15 Q. You've written a number of -- of scientific
- 16 papers that have been submitted for peer-review --
- 17 for peer-review; have you not?
- 18 A. I have, many.
- 19 Q. Have some of those research projects been
- 20 pursued based upon contract funding?
- 21 A. I have only had one contract in my life, and
- 22 that is currently in force, and it's a contract from
- 23 -- through NIH to develop some studies in certain
- 24 aspects of genetics.
- 25 Q. And how long has that contract been ongoing?

- 1 A. Nine months. It's a year -- one-year contract.
- 2 Q. Does that contract permit NIH to censor in any
- 3 way your interpretation of the data?
- 4 MR. ALLINDER: Object to the form.
- 5 A. This contract doesn't even mention anything
- 6 about publication. It's to develop certain
- 7 relationships and ways of collecting information.
- 8 But I believe that there are some contracts which
- 9 require pre-publication review of the papers.
- 10 Q. By the contract funder?
- 11 A. Yes.
- 12 Q. To determine if the contract funder is
- 13 comfortable with not only the data but the
- 14 researcher's interpretation?
- 15 A. I don't know enough about it.
- 16 Q. So you don't have any experience at all in
- 17 judging those types of things?
- 18 A. No.
- 19 MR. ALLINDER: Object to the form.
- 20 Q. On your work for NIH are you free to publish if
- 21 you come up with data and interpretations that you
- 22 feel merit publication?
- 23 A. Absolutely.
- 24 Q. Okay. And is there anything in that contract
- 25 that would allow NIH to censor any publication by you

- 1 of your interpretation of the data?
- 2 MR. ALLINDER: Object to the form.
- 3 A. My contract doesn't mention publication at all.
- 4 I'm free to do what I want.
- 5 Q. Would you agree to work under a contract that
- 6 contained such provisions?
- 7 MR. ALLINDER: Object to the form.
- 8 A. Depends upon the nature of the contract. I
- 9 could see such a -- such provisions as being
- 10 immanently reasonable. In fact a lot of people work
- 11 under such contracts, say clinical research trials
- 12 funded by drug companies often have such stipulations
- 13 in the contract. It's very common.
- 14 Q. In other words, those types of contracts are not
- 15 consistent with the notion of a full and complete
- 16 disclosure of the scientist's research results, are
- 17 they?
- MR. ALLINDER: Object to the form.
- 19 A. No, I -- I think that you're using the term
- 20 "contract" to include a wide variety of
- 21 arrangements. Some contracts have very strict
- 22 criteria for submitting data and -- or
- 23 pre-publication papers to the person or organization
- 24 that awards the contract, others are very loose and
- 25 are not at all interested, and others encourage

- 1 publication of any papers that come from the contract
- 2 and want to be acknowledged.
- 3 Q. So it's your understanding that there are at
- 4 least some types of contract funding situations that
- 5 due to the provisions of the contract would be
- 6 inconsistent with the notion of full and complete
- 7 disclosure of research results to the public?
- 8 A. Unless approved by the contractor. There are
- 9 such contracts, certainly.
- 10 Q. And --
- 11 A. In fact I think there are a lot of them today,
- 12 because, you know, there are patent considerations
- 13 and biotech testing, there are questions of
- 14 submission for FDA approval. There are so many
- 15 considerations that a -- a wide variety of
- 16 arrangements exist.
- 17 Q. And there would be considerations with regard to
- 18 whether a manufacturer's association would be
- 19 comfortable with research results being published
- 20 that might implicate the very products that those
- 21 manufacturers produce; true?
- MR. ALLINDER: Excuse me. Object to the
- 23 form.
- 24 A. I'm not aware of that. I'm just -- I'm not
- 25 aware of that at all. But maybe. Who knows?

- 1 Q. So again, that's not an area that you would hold
- 2 any expertise in?
- 3 MR. ALLINDER: Object to the form.
- 4 A. I don't consider myself an expert in that, no.
- 5 Q. Now getting back to Dr. Homburger, so I have
- 6 this clear in my head, do I understand correctly that
- 7 it's your opinion that if he was working under a
- 8 contract with CTR that some provision in the contract
- 9 may well have authorized CTR to hinder Dr.
- 10 Homburger's attempt to publish the results of his
- 11 study?
- MR. PURDY: Object to the form.
- MR. ALLINDER: Object to the form.
- 14 A. I do not know the details or any aspects of the
- 15 contract that Dr. Homburger had with CTR. I'm unable
- 16 to comment.
- 17 Q. All right. But normally, as a general rule,
- 18 absent some specific contractual provision to the
- 19 contrary, you would not expect the funding
- 20 organization to attempt to hinder a researcher's
- 21 efforts to publish his or her results?
- MR. ALLINDER: Object to the form.
- 23 Q. True?
- 24 A. I don't believe that there was any attempt to
- 25 hinder publication of Dr. Homburger's results. From

- 1 my understanding there were exceptions made to his
- 2 interpretation of microscopic slides. Doc -- these
- 3 were -- Dr. Homburger was made aware of these
- 4 exceptions to his interpretation and was then
- 5 encouraged to publish his paper.
- 6 Q. Well, first of all, Dr. Rubin, I thought you
- 7 told me that you didn't attempt to investigate as a
- 8 detective whether the allegations by Homburger about
- 9 hindrance were true or not.
- 10 MR. ALLINDER: Object to the form.
- 11 A. That is correct. I'm trying to --
- 12 Q. Now setting that aside.
- 13 A. Setting that aside, --
- 14 Q. Yeah.
- 15 A. -- I'm trying to inform you what I do know.
- 16 Q. All right. Setting that aside and also setting
- 17 aside the whole matter of whether Homburger's
- 18 interpretations were correct or incorrect, okay, and
- 19 focusing solely on the matter of the concept of a
- 20 funding organization hindering the expression of the
- 21 research author's results, is it your opinion that
- 22 generally that should not occur absent some specific
- 23 contract provision?
- MR. ALLINDER: Object to the form.
- MR. PURDY: Yeah, I'm going to object to

- 1 the form specifically because I think the question
- 2 you asked, counsel, in all fairness you're asking him
- 3 to set aside specifically a fact that he would have
- 4 to consider in answering the question; i.e., --
- 5 MR. GILL: That's a --
- 6 MR. PURDY: -- whether -- .
- 7 MR. GILL: That's a speaking objection.
- 8 MR. PURDY: Well I'm trying to help you as
- 9 to specific reason for the form question. I object
- 10 to the form for the reasons stated.
- 11 BY MR. GILL:
- 12 Q. I'm going to ask it again, Dr. Rubin, try to get
- 13 a clear record here.
- 14 My question doesn't go to whether there was
- 15 hindering or not and it doesn't go to whether
- 16 Homburger's interpretation of the results was correct
- 17 or not. All right. Do --
- 18 A. Okay.
- 19 Q. -- we understand each other so far?
- 20 A. I got you.
- 21 Q. Okay. Do you believe that a funding
- 22 organization should been permitted to hinder a
- 23 contract researcher's attempt to express his
- 24 interpretation of the results of his study in the
- 25 absence of some specific contract provision that

- 1 gives the funder that right?
- 2 MR. ALLINDER: Object to the form.
- 3 A. If qualified members of the granting
- 4 organization are persuaded that the interpretation is
- 5 correct, I think they have every right and even an
- 6 obligation to inform the grantee of their
- 7 reservations. Having said that, absent any clause
- 8 which permits them to prohibit publication,
- 9 publication can proceed according to the wishes of
- 10 the grant -- of the grantee.
- 11 Q. Can and should proceed; correct?
- 12 A. Depending upon what the grantee wants to do; in
- 13 other words, he may become aware that his
- 14 interpretation is incorrect, in which case he may not
- 15 want to publish it at all, or he may consider the
- 16 reservations on the part of someone else in the
- 17 granting organization to be incorrect, in which case
- 18 he may not want to change a thing, or he may take it
- 19 seriously and say, Well, I can change it and publish
- 20 it in an alternate form. There are many variations
- 21 possible.
- 22 Q. So if there's no contract provision and the
- 23 researcher has heard the funding organization out
- 24 with respect to its point of view, the researcher
- 25 should be permitted to express his interpretation of

- 1 his results in pursuing the peer-review process
- 2 absent some contract provision of the contract?
- 3 A. I don't understand.
- 4 MR. ALLINDER: Excuse me. Let him finish
- 5 the question. Were you done?
- 6 MR. ALLINDER: I thought he was done.
- 7 MR. GILL: Why don't you read it back to
- 8 us, please.
- 9 MR. ALLINDER: There was a pause at the
- 10 end.
- 11 (The record was read by the reporter.)
- MR. ALLINDER: Object to the form.
- 13 A. I would agree with that statement with one
- 14 exception: The word "should" should been replaced by
- 15 the word "is". Absent any provision to the contrary
- 16 in the contract, he "is" permitted as a citizen of
- 17 the United States to do anything he wants with his
- 18 manuscript.
- 19 Q. And you would be critical of any funding
- 20 organization that attempted to interfere with that
- 21 process; true?
- 22 A. You will have to tell me what do you mean by
- 23 "interfere".
- 24 Q. By attempting to hinder the ability of the
- 25 researcher to express his interpretation of his

- 1 results.
- MR. PURDY: Object to the form.
- 3 A. You know, you're -- you're too vague for me to
- 4 understand what you mean, and I'm not being evasive
- 5 here. Tell me what you mean by "hinder," tell me
- 6 what you mean by "interfere," and I'll been pleased
- 7 to respond to your question.
- 8 Q. How about if a representative of the funding
- 9 organization attempted to censor the language that
- 10 the researcher would use in the interpretation
- 11 section of his research paper?
- 12 A. Well, let me interpret that for you. If a
- 13 member of the granting organization is a pathologist
- 14 with impeccable credentials who informs the grantee
- 15 that his interpretation of cancer is incorrect, it
- 16 would be entirely appropriate for him; that is, the
- 17 pathologist, to inform the grantee of the fact that
- 18 he is mistaken and that he is them employing the
- 19 wrong terminology which would be quite misleading.
- 20 The grantee, having received this information, is at
- 21 liberty to do what he wishes, but it's entirely
- 22 appropriate to alert him to this error on his part.
- 23 Q. How about if --
- 24 A. If you call that -- if you call that
- 25 interfering, you see, another person might call that

- 1 advising.
- Q. How about if the funding organization had told
- 3 Dr. Homburger that if you use the term "cancer" in
- 4 connection with your research paper on laryngeal --
- 5 larynpeal -- laryngeal cancer in hamsters through
- 6 inhalation of smoke that your funding will be cut
- 7 off, --
- 8 MR. ALLINDER: Objection.
- 9 Q. -- would that be advisory or a form of
- 10 interference?
- 11 MR. ALLINDER: Object to the form.
- 12 A. It would depend upon the validity of the
- 13 criticism. If I were getting a contract out to
- 14 develop a certain machine and a certain methodology
- 15 and I happen to be a pathologist I think who is
- 16 reasonably adept at interpreting microscopic slides,
- 17 and the grantee then shows me slides that he is
- 18 interpreting as cancer that I know better, now I
- 19 might say: Well, look, you don't have cancer here,
- 20 and I don't think you ought to call something cancer
- 21 that isn't cancer, and you better get better data or
- 22 more data or better opinions, see, because this isn't
- 23 cancer, and I am not going to support further work
- 24 that's clearly erroneous.
- 25 That seems to me to be a reasonable position.

- 1 You do not want dissemination of inaccurate and
- 2 misleading data. It's then the obligation -- I would
- 3 feel an obligation if someone examined my data that
- 4 way to submit the slides, let's say, to a half a
- 5 dozen other major people in the field and say, What's
- 6 your opinion? I mean that's the way to get it. Now
- 7 you may come back with three on one side and three on
- 8 the other, in which case he has a dilemma, and he has
- 9 to be careful about what he says. But these things
- 10 are driven by situations.
- 11 Q. But do I understand then correctly, Dr. Rubin,
- 12 that you wouldn't see a problem if a qualified
- 13 representative of a funding organization were to say
- 14 the to Dr. Homburger, We don't think that what you
- 15 found is cancer and if you describe it as such we
- 16 will withdraw all funding. Would that be
- 17 appropriate?
- 18 A. It's depending on the situation.
- 19 Q. It might be appropriate in certain situations?
- 20 A. Could be appropriate under certain situations,
- 21 could not been appropriate under other situations.
- 22 Q. How many situations like that have you become
- 23 aware of in the over 40 years that you've been
- 24 practicing medicine?
- MR. ALLINDER: Object to the form.

- 1 A. Well let me give it to you in a little more
- 2 expansive way. In examining all of the projects, all
- 3 -- and all of the information regarding the CTR
- 4 research program, I have never come across any
- 5 situation such as that of Dr. Homburger. In my own
- 6 experience I have also never come across this
- 7 particular situation. On the other hand, I am aware
- 8 from reading the newspapers that these things do
- 9 occur, yes, in other situations. As you're aware,
- 10 the -- the synthroid controversy, some others, are
- 11 quite similar.
- 12 Q. Are you aware of Dr. Homburger's testimony that
- 13 he did change the description he gave to the lesions
- 14 that he found in the larynxes of his hamsters as a
- 15 result of what he considered to be intimidation from
- 16 CTR?
- 17 A. Well, Dr. Homburger may not been as easily
- 18 intimidated as claimed. What his objection is to Dr.
- 19 Sommers, who is a world-renowned pathologist who did
- 20 not accept his diagnosis of cancer and said that
- 21 these were really pseudoepitheliomatous,
- 22 p-s-e-u-d-o-e-p-i-t-h-e-l-i-o-m-a-t-o-u-s,
- 23 hypoplasia.
- 24 Q. These are precancerous lesions?
- 25 A. They can be, can be, but it's not necessarily.

- 1 It's the kind of lesion for which pap smears are
- 2 designed to find. When one finds those types of
- 3 lesions, only a small proportion of women will
- 4 develop cancer of the cervix who have that, the large
- 5 majority do not, so it is a precancerous lesion in
- 6 the sense that at least some of these lesions may
- 7 develop into cancer, but that's epidemiologic, and
- 8 actually in animals sometimes all you get is -- no
- 9 matter what you do all you get is
- 10 pseudoepitheliomatous hypoplasia, we don't use that
- 11 term today, but it was in vogue at that time, and
- 12 indeed was used by Dr. Homburger in many of his other
- 13 interpretations, so.
- 14 Q. But Dr. Homburger didn't truly believe that
- 15 those lesions were simply precancerous in the
- 16 hamsters, did he; he thought they were cancerous?
- MR. ALLINDER: Object to the form.
- 18 A. I didn't -- I've looked through that paper that
- 19 he did publish. I don't see it.
- 20 Q. You don't agree that they were cancerous?
- 21 A. I said -- let me make clear what I just said. I
- 22 said I didn't see it. The documentation provided by
- 23 Dr. Homburger in the paper was in the form of
- 24 photomicrographs. I didn't see any invasive cancer
- 25 in those photomicrographs, so --

- 1 Q. And he didn't claim any in the paper, did he?
- 2 MR. ALLINDER: Object to the form.
- 3 A. He's very careful in that paper and I'd have to
- 4 go over the paper again to see whether he referred to
- 5 I think one or two as microinvasive cancer. He -- he
- 6 may have. In that paper, --
- 7 Q. But the sworn --
- 8 A. -- in the 74 paper.
- 9 Q. You've reviewed some of his sworn testimony;
- 10 have you not?
- 11 A. I have.
- 12 Q. And in some of his sworn testimony he's
- 13 testified that he felt more strongly about the
- 14 lesions in the larynxes of the hamsters than what his
- 15 paper contained; true?
- 16 A. That's what he says.
- 17 Q. And he stated under oath that it was his
- 18 intention to interpret those lesions as cancerous
- 19 prior to the time that he was contacted by
- 20 representatives of CTR on that subject; true?
- 21 A. He was contacted by Dr. Sommers.
- 22 Q. He was also contacted by an attorney named
- 23 Finnegan; was he not?
- 24 A. I don't have any -- I don't know anything about
- 25 that, because I know that Dr. Sommers reviewed the

- 1 slides. That's really all I know about it.
- 2 Q. Everything you know about this incident is
- 3 strictly secondhand based upon your review of
- 4 documents; correct?
- 5 A. Second, third, you know.
- 6 Q. But you know that Dr. Homburger has alleged that
- 7 he was contacted by Mr. Finnegan, an
- 8 eminently-qualified advocate on behalf of the tobacco
- 9 industry, with respect to the terminology that he
- 10 should use in his paper; true?
- 11 MR. ALLINDER: Object to the form.
- 12 A. No, I don't know. I don't know what Finnegan
- 13 said to him. I -- I recall that Dr. Sommers examined
- 14 the slides. That's what I recall.
- 15 Q. Do you recall reading Dr. Homburger's
- 16 allegations regarding Finnegan's contact?
- 17 A. I vaguely have a rec -- recollection of the
- 18 name.
- 19 Q. Finnegan would not be an eminently-qualified
- 20 pathologist, would he?
- 21 MR. ALLINDER: Object to the form.
- 22 A. I don't think he was board certified.
- 23 Q. And his qualifications in the field of pathology
- 24 would in no way measure up to Dr. Homburger's; true?
- 25 A. Or Dr. Sommers.

- 1 Q. But certainly not to Dr. Homburger's?
- 2 A. No, Homburger was not a pathologist.
- 3 Q. Well was Dr. Homburger more qualified to
- 4 interpret the nature of the lesions in the hamsters
- 5 than you would expect Mr. Finnegan was?
- 6 MR. ALLINDER: Object to the form.
- 7 A. I think he was somewhat more qualified but --
- 8 Q. Hamburger was?
- 9 A. I would guess that he was, but whether or not he
- 10 was qualified to distinguish hypoplasia from cancer,
- 11 that's another matter.
- 12 Q. If he wasn't qualified to do that then he wasn't
- 13 qualified to do the study, was he?
- 14 A. Well he had --
- MR. ALLINDER: Object -- excuse me. Object
- 16 to the form.
- 17 A. He had coworkers with him.
- 18 Q. Were some of his coworkers in disagreement with
- 19 Homburger based upon documents that you've reviewed?
- 20 A. I don't know.
- 21 MR. ALLINDER: Object to the form.
- 22 Q. One would have to assume that the SAB would not
- 23 have given the Homburger study a high enough priority
- 24 for funding -- to obtain funding unless the SAB felt
- 25 that Homburger and his staff were up to the job?

- 1 A. Contracts are not awarded on the same priority
- 2 basis as grants.
- 3 Q. So if this happened to have been a contract, the
- 4 SAB never saw it?
- 5 MR. ALLINDER: Object to the form.
- 6 A. I -- I have no knowledge of that whatsoever.
- 7 Q. Is it your understanding that with regard to
- 8 contract research, CTR did not seek the advice of the
- 9 SAB?
- 10 A. Well, I don't know. What CTR wanted to do, as I
- 11 understand it, was to have Dr. Homburger develop his
- 12 system, smoking system to develop lung cancer in
- 13 hamsters, which would have been a very good model and
- 14 then you could see how tobacco smoke actually
- 15 produces cancer. The administrative background as to
- 16 how that grant was awarded and how it was evaluated I
- 17 don't know.
- 18 Q. You don't know for sure whether that was a
- 19 contract or a grant?
- 20 A. No, I think it was a contract.
- 21 Q. Based upon your review of all the documents that
- 22 you've seen in this case, do you under -- have an
- 23 understanding of how the administrative process
- 24 worked at CTR with regard to the funding of
- 25 contracts?

- 1 MR. ALLINDER: Object to the form.
- 2 A. I don't know much about that.
- 3 Q. Did you come across material which indicated
- 4 that with respect to contracts it would only be the
- 5 scientific director of the SAB that would interact
- 6 with CTR staff members as to whether or not to fund a
- 7 contract?
- 8 MR. ALLINDER: Object to the form.
- 9 A. I don't know.
- 10 Q. If it were done that way, the only people
- 11 involved in the decision to fund would all be
- 12 employees of CTR; true?
- MR. ALLINDER: Object. Object to the
- 14 form.
- 15 A. It's redundant, the way you've asked the
- 16 question.
- 17 Q. And Dr. Homburger never expected to develop lung
- 18 cancer in the hamsters absent some carcinogen priming
- 19 agent; true?
- 20 MR. ALLINDER: Object -- object to the
- 21 form.
- 22 A. I don't know what he expected to find. I never
- 23 talked with Dr. Homburger at the time.
- 24 Q. You wouldn't expect to have hamsters develop
- 25 lung cancer, would you, by inhaling smoke?

- 1 MR. ALLINDER: Object to the form.
- 2 A. Before doing the experiment? They might. I
- 3 wouldn't know. That's why I'd do the experiment.
- 4 Q. So it wasn't a foregone conclusion that's
- 5 hamsters were going to develop lung cancer from smoke
- 6 inhalation?
- 7 MR. ALLINDER: Object to the form.
- 8 A. Well that's for sure.
- 9 Q. And if in fact it turned out that they didn't
- 10 develop lung cancer, then CTR as an organization
- 11 owned by the smoking industry might well wish to
- 12 publish that fact; true?
- MR. ALLINDER: Object to the form.
- 14 A. Well, CTR didn't publish anything. You mean CTR
- 15 might --
- 16 Q. Publish the fact?
- 17 A. -- like to see that it was published.
- 18 Q. And then comment through press releases or
- 19 whatever on those findings?
- 20 A. This is all hypothetical. I -- I don't really
- 21 know what you're talking about.
- 22 Q. It would certainly be consistent with the
- 23 interest of an industry that wanted to deny the cause
- 24 and effect relationship between smoking and health;
- 25 true?

- 1 MR. ALLINDER: Object to the form.
- 2 A. You've lost me a little bit. I -- the fact that
- 3 hamsters did not develop cancer of the lung after
- 4 being exposed to the inhalation of cigarette smoke,
- 5 according to your question, is your question would
- 6 that be something that cigarette companies might want
- 7 to have publicized at that time? Might have.
- 8 Q. And you haven't seen anything that suggested to
- 9 you that Dr. Homburger ever thought that he was
- 10 considering to develop lung cancer in hamsters by
- 11 inhaling smoke unless there was some priming agent
- 12 involved.
- MR. ALLINDER: Object to the form.
- 14 Q. True?
- MR. ALLINDER: Object to the form.
- 16 A. As I said, I didn't talk with Dr. Homburger
- 17 prior to his accepting the contract. I assume he
- 18 thought he was under some -- under some kind of
- 19 circumstances involving smoking that cancer to the
- 20 lung would develop. The precise details of what was
- 21 going on in his head, I really don't know.
- 22 Q. Well based purely on what you've read of Dr.
- 23 Homburger's sworn testimony and what you've read that
- 24 he's written, have you ever read anything by him that
- 25 suggested that he expected to develop lung cancer in

- 1 hamsters absent a priming agent?
- 2 MR. ALLINDER: Object to the form of the
- 3 question.
- 4 A. I don't know.
- 5 Q. And he sought funding from CTR to take the next
- 6 step in his research of using a carcinogen priming
- 7 agent with hamsters in smoke inhalation studies;
- 8 true?
- 9 MR. ALLINDER: Object to the form.
- 10 A. True, but incomplete. He sought funding not
- 11 only from CTR, but he also sought funding from the
- 12 National Cancer Institute. He was denied funding not
- 13 only by CTR, but also by the foremost granting agency
- 14 in the field of cancer, the National Cancer
- 15 Institute.
- 16 Q. And his denial of funding by the National Cancer
- 17 Institute followed the controversy over whether or
- 18 not he had found cancerous lesions in the larynxes of
- 19 hamsters; correct?
- 20 MR. ALLINDER: Object to the form.
- 21 A. Correct, but incomplete. Chronologically that's
- 22 true. The inference that this controversy had
- 23 anything to do with the rejection by the National
- 24 Cancer Institute is almost ludicrous. In preparing an
- 25 application or submitting an application to NIH,

- 1 you're required to present preliminary data, and in
- 2 preliminary data he would have supplied the
- 3 photomicrographs of the larynx, which he claimed to
- 4 be -- have produced cancer; and presumably he was
- 5 unable to convince the reviewers at the National
- 6 Cancer Institute, whoever they were, they're
- 7 anonymous, because they served on the committee, but
- 8 whoever they were, considering the composition of
- 9 these committees, they were eminent investigators in
- 10 the field who clearly didn't feel that Homburger had
- 11 proved his case.
- 12 Q. And do you know whether the CTR played any role
- 13 in lobbying the National Cancer Institute about
- 14 whether to fund Dr. Homburger?
- MR. ALLINDER: Object to the form.
- 16 A. Well the first thing is I have no knowledge of
- 17 lobbying, I am not an expert in that, and I don't
- 18 know anything about it. The second thing is that they
- 19 would -- they would not only have had to influence
- 20 the administrators of the NCI, they would also have
- 21 to know who was reviewing the anonymous reviewers of
- 22 Homburger's grant application. They would have had to
- 23 be able to influence them to change their minds and
- 24 to submit reviews that were dishonest. I mean the
- 25 whole scenario is ludicrous.

- 1 Q. But you simply don't know the reasons why the
- 2 review board at NCI didn't fund Dr. Homburger;
- 3 correct?
- 4 A. Well, I -- from my experience, having served
- 5 contemporaneously on a review board at that time, so
- 6 I know exactly how review boards worked at NIH at
- 7 that time because I was on a review board at that
- 8 time, --
- 9 Q. So you have opinions, but all I'm saying, Dr.
- 10 Rubin, --
- 11 A. Well, I know --
- 12 Q. -- is that you don't have any firsthand
- 13 knowledge, do you?
- 14 A. I have firsthand knowledge of how NIH worked, I
- 15 have firsthand knowledge of how review sections
- 16 worked, and it is inconceivable to me that the
- 17 reviewers of Homburger's grant were influenced by
- 18 CTR, by tobacco companies, by Mr. Finnegan, or by any
- 19 other considerations.
- 20 Q. And you do not make that statement as an
- 21 advocate?
- 22 A. I'm not an advocate. I was there at the time at
- 23 NIH serving on study sections. I know how those
- 24 things work. I know the kind of people who are
- 25 recruited for the study sections. I know the

- 1 anonymity that obtains with the reviewers. So I'm
- 2 speaking from firsthand knowledge, contemporaneous
- 3 knowledge of the workings of the NIH.
- 4 Q. Was Dr. Gio Gori the administrator of NCI at
- 5 that time?
- 6 A. The name Gori is familiar to me, and I know he
- 7 was an administrator, but I -- I don't -- you know, I
- 8 don't know much about the workings of NCI at the
- 9 time.
- 10 Q. Now when Dr. Homburger undertook the study
- 11 involving smoke inhalation of hamsters, at that time
- 12 the study did not expect to focus on laryngeal
- 13 cancer, did it?
- MR. ALLINDER: Object to the form.
- 15 A. The contract was for lung cancer.
- 16 Q. And so Dr. Homburger's findings with regard to
- 17 laryngeal cancer were outside the scope of his
- 18 contract as you understand it?
- 19 MR. ALLINDER: Object to the form.
- 20 A. As I understand, the contract was for lung
- 21 cancer. I don't think laryngeal cancer was part of
- 22 the contract.
- 23 Q. Now, we've talked at length about Dr.
- 24 Homburger's situation, and you mentioned previously a
- 25 Dr. Guts -- Gutstein. Is there anybody else that you

- 1 can specifically recall that you investigated with
- 2 respect to this allegation that CTR attempted to
- 3 suppress the results of research studies?
- 4 MR. ALLINDER: Object to the form of the
- 5 question.
- 6 A. I think there are a half a dozen or somewhere in
- 7 that ballpark other affidavits from --
- 8 Q. Scientists who --
- 9 A. -- scientists who received some kind of funding
- 10 from CTR.
- 11 Q. You came across another half a dozen scientists
- 12 who alleged that CTR in some way or other attempted
- 13 to censor the results of their studies?
- MR. ALLINDER: Excuse me. Object to the
- 15 form of the question. I think you misunderstood his
- 16 earlier question.
- 17 MR. PURDY: You did.
- 18 MR. ALLINDER: I'd like him to clarify.
- 19 Q. Let me ask it again in case there was some
- 20 misunderstanding.
- 21 A. Maybe I did misunderstand.
- 22 Q. Other than Dr. Homburger -- Dr. Homburger
- 23 clearly was alleging, rightly or wrongly, --
- 24 A. What?
- 25 Q. Dr. Homburger as far as you know certainly

- 1 alleged, whether rightly or wrongly, that he was the
- 2 victim of some attempt to censor his publication of
- 3 the results of his study; correct?
- 4 A. That's correct.
- 5 Q. Now based upon everything else that you have
- 6 reviewed in this case, can you think of anybody else
- 7 who made similar allegations directed towards CTR?
- 8 A. Similar to Homburger? Not really. I -- I think
- 9 there is a sworn statement that was issued on the
- 10 part of Carol Henry who was the director of a project
- 11 by Microbiological Associates, also under a contract
- 12 to develop a model in mice, and she --
- 13 Q. Was this a study dealing with the etiology of
- 14 disease or was it more focused toward the
- 15 relationship between tobacco smoke and disease?
- 16 A. It's tobacco smoke. It's inhalation of tobacco
- 17 smoke by mice in an attempt to develop lung cancer in
- 18 mice as a model to study.
- 19 Q. So similar to Dr. Homburger's study in the sense
- 20 that smoke was being inhaled by animals in an attempt
- 21 to determine what effect that might have on the
- 22 development of lung cancer?
- MR. ALLINDER: Excuse me. Object to the
- 24 form.
- 25 A. Yeah, her allegations are different from

- 1 Homburger's.
- 2 Q. But the nature of her study is somewhat similar?
- 3 A. You substitute mice for hamsters.
- 4 Q. So she wound up making the same general
- 5 allegations of censoring and attempt to censor by CTR
- 6 as Homburger did?
- 7 A. No.
- 8 MR. ALLINDER: Object to the form.
- 9 Q. Did she make any allegations connected to this
- 10 Mr. Finnegan?
- 11 A. I have no knowledge of that fact.
- 12 Q. What have you reviewed in connection with Carol
- 13 Henry's allegations?
- 14 A. I've reviewed a deposition transcript and I have
- 15 reviewed the final report of Microbiological
- 16 Associates with regard to these studies.
- 17 Q. Now in her deposition Ms. Henry certainly
- 18 discussed Mr. Finnegan at length; did she not?
- 19 A. I don't remember that.
- 20 Q. You don't recall that?
- 21 A. I do not remember.
- 22 Q. What was -- what is your recollection of Ms.
- 23 Henry's allegations? Dr. Henry.
- 24 A. Dr. Henry did not like the Forward which was
- 25 written by Dr. Sommers, and I think she didn't like

- 1 the order of two sections, I think she preferred to
- 2 have one before the other or vice versa, I don't
- 3 remember exactly, but basically what she said is that
- 4 there was no censorship, interference, or changes at
- 5 all with regard to the data or -- or actually her
- 6 writing. Her-- her beef was the introduction
- 7 basically written by Dr. Sommers.
- 8 Q. Do you recall that she was also upset that CTR
- 9 published a book about her study without ever letting
- 10 her know that that was occurring?
- 11 A. I don't recall the details. Something like that,
- 12 but I -- I don't recall exactly what it was.
- 13 Q. In other words, CTR, pursuant to this contract,
- 14 took Dr. Henry's study, added a Forward from Dr.
- 15 Sommers, rearranged some organization of the study,
- 16 and didn't tell Dr. Henry about any of that?
- 17 MR. ALLINDER: Object to the form of the
- 18 question.
- 19 Q. Is that all true?
- 20 MR. ALLINDER: Object to the form of the
- 21 question.
- 22 A. I don't remember exactly what she was told, what
- 23 she was not told.
- 24 Q. Assuming that is all true, would that have been
- 25 unusual in your experience dealing with the funding

- 1 of medical research projects?
- 2 MR. ALLINDER: Object to the form of the
- 3 question.
- 4 A. The final report that -- of Microbiological
- 5 Associates is not the kind of publication that I
- 6 personally have ever been involved in, and I can't
- 7 answer your question whether --
- 8 Q. Now Dr. Sommers' Forward in this book, have you
- 9 reviewed it?
- 10 A. I did.
- 11 Q. It contains basically an interpretation of the
- 12 data; does it not?
- 13 A. It does.
- 14 Q. Do you recall that Dr. Henry during her
- 15 deposition complained that she had been prohibited
- 16 from including an interpretation of the data in her
- 17 report, the report that she was going to submit for
- 18 publication?
- 19 A. I don't recall that. It may be there.
- 20 Q. Do you recall who it was that Dr. Henry alleged
- 21 that prohibited her from adding an interpretation of
- 22 the data to her report?
- 23 A. No, I don't remember.
- 24 Q. You don't recall that it was Mr. Finnegan?
- 25 A. I don't recall.

- 1 Q. Based upon the review that you have made over
- 2 the years of research studies published in medical
- 3 journals, they always contain some data; do they not?
- 4 A. Well, unfortunately, you can come across some
- 5 papers that have atrocities of data, but they should.
- 6 Q. Let me say generally. Generally --
- 7 A. They should, yes.
- 8 Q. Generally the papers deal with data; do they
- 9 not?
- 10 A. They do, peer-review papers.
- 11 Q. Peer-review papers would deal with data --
- 12 A. Yes.
- 13 Q. -- and then the authors would attempt to
- 14 interpret the data?
- 15 A. That is correct.
- 16 Q. And then that sets up a process of debate that
- 17 may or may not emerge within the medical -- the
- 18 biomedical community as to whether or not the
- 19 interpretation of the data is valid or not?
- 20 A. That's unexceptional.
- 21 Q. That's the way it usually occurs; correct?
- 22 A. I would agree with that.
- 23 Q. Now, have you ever come across a situation where
- 24 the author of a research paper was prohibited by the
- 25 funding organization from including her

- 1 interpretation of the data in the paper she submitted
- 2 for publication?
- 3 A. I'm unaware of these -- of such instances.
- 4 Q. You would not condone that type of conduct,
- 5 would you, Dr. Rubin?
- 6 MR. ALLINDER: Object to the form.
- 7 A. Well, I don't think that people should interfere
- 8 with the publication of valid data.
- 9 Q. And Dr. Sommers' interpretation of Dr. Henry's
- 10 data apparently was different than Dr. Henry's
- 11 interpretation; true?
- MR. ALLINDER: Object to the form of the
- 13 question.
- 14 A. Not really, no.
- 15 Q. Not really?
- 16 A. No.
- 17 Q. Didn't Dr. Henry reach the conclusion that the
- 18 data suggested an association between smoke
- 19 inhalation in mice and the development of
- 20 precancerous conditions?
- 21 A. No.
- 22 Q. Cancerous conditions?
- 23 A. Dr. Henry acknowledged that her data did not
- 24 show that tobacco smoke was carcinogenic to the mouse
- 25 lung by the accepted criterion of medical research.

- 1 Q. Meaning a confidence level of 95 percent?
- 2 A. That's correct. She acknowledged that. She --
- 3 if you read her own data, I think it's a little
- 4 confusing depending on the time, but the major -- her
- 5 major finding was that P equals .14, which is
- 6 certainly unacceptable, and that actuarial -- there's
- 7 a statement to the effect that actuarial analysis of
- 8 the data showed that there was no difference between
- 9 the control and the sham exposed mice.
- 10 Q. Well P equals 1.4 --
- 11 A. .14.
- 12 Q. -- .14 equals what confidence level?
- 13 A. Exactly that, .14. You want the reciprocal of
- 14 .86?
- 15 Q. You don't recall her coming to the conclusion
- 16 that she obtained a confidence level of 93 percent
- 17 between the -- the smoking mice and the sham smoking
- 18 mice that were all treated exactly the same way
- 19 except for the condition of the smoke?
- 20 A. It's -- she did that at a very -- at a single
- 21 time period, but that if you extended the time
- 22 period, which is the appropriate thing to do, do an
- 23 actuarial analysis, there was no difference, and then
- 24 what -- what she comes to the conclusion is that
- 25 despite the lack of statistical significance, she

- 1 felt that her data demonstrated that tobacco smoke
- 2 was weakly carcinogenic, and you can't do that. I
- 3 mean it either is significant or it's not
- 4 significant. And --
- 5 Q. Well would it be valuable to know that cigarette
- 6 smoke might be weakly carcinogenic?
- 7 A. It doesn't show that it's weakly carcinogenic.
- 8 Q. If it did.
- 9 A. I mean it's not true and it's a complete
- 10 misunderstanding of what weakly carcinogenic means.
- 11 But in any event, without going into a lengthy
- 12 discussion which is technical, I mean it either is
- 13 statistically significant or it is not -- not
- 14 statistically significant, and in this case it was
- 15 not. And it totally -- it's a totally selective
- 16 interpretation; that is, data that she feels supports
- 17 this so-called weak carcinogenicity in the animals is
- 18 selected to buttress her conclusion. Data on
- 19 carcinogen-primed animals which do not support her
- 20 conclusions, in fact support a conclusion that
- 21 cigarette smoke protects against the action of
- 22 carcinogens and which is statistically significant,
- 23 is not selected for her, so she has a selective
- 24 memory or bias with respect to these. The entire
- 25 issue of the greater incidence of shelf --

- 1 Q. To kind of --
- 2 A. -- controls -- Please let me continue.
- 3 Q. Go ahead.
- 4 THE WITNESS: Am I permitted to finish
- 5 under the rules of the deposition?
- 6 MR. PURDY: You are.
- 7 MR. ALLINDER: Most certainly. Go ahead.
- 8 A. The entire issue of shelf controls, which in
- 9 this particular case assumes a particular
- 10 significance, is left untouched, so --
- 11 Q. Dr. Henry did feel --
- MR. ALLINDER: Excuse me. Excuse me.
- 13 Doctor, --
- MR. GILL: Are you done now, Doctor?
- MR. ALLINDER: -- are you done?
- 16 THE WITNESS: I'm through.
- MR. ALLINDER: May I ask you a question
- 18 before you continue, or are you getting close to a
- 19 breaking point?
- 20 MR. GILL: I've got -- I just want to
- 21 finish this area and then we'll break for lunch,
- 22 Bill.
- 23 BY MR. GILL:
- 24 Q. Dr. Henry did feel that further research was
- 25 warranted; did she not?

- 1 A. She felt that it was.
- 2 Q. CTR refused to provide funding for further
- 3 research to Dr. Henry; true?
- 4 A. That's my understanding.
- 5 Q. Now setting aside altogether whether Dr. Henry's
- 6 interpretation of the data was valid or not, you
- 7 agree that her interpretation of the data apparently
- 8 was different than Dr. Sommers' interpretation of the
- 9 data --
- 10 MR. ALLINDER: Object to the form.
- 11 Q. -- in some respects?
- MR. ALLINDER: Object to the form of the
- 13 question.
- 14 A. I'm not sure that's so. I think if you pin Dr.
- 15 Henry down she will acknowledge the points that I
- 16 have just brought out to you which form the basis of
- 17 Dr. Sommers' opinion. I think she will acknowledge
- 18 all of that. What Dr. --
- 19 Q. You think that after reading her deposition?
- 20 A. Yes. Yes, I think she would. I think she has,
- 21 because she does not dispute that the data have been
- 22 presented in an educated and accurate form, so in a
- 23 formal sense, Dr. Henry would agree that by accepted
- 24 scientific criteria for publication she has not
- 25 proved a carcinogenic effect of tobacco smoke in the

- 1 mouse lung.
- 2 Q. But you don't think that Dr. Henry would have
- 3 written the Forward to the CTR book on her study in
- 4 the same way that Dr. Sommers wrote it, do you?
- 5 MR. ALLINDER: Object to the form of the
- 6 question.
- 7 A. I don't know how Dr. Henry would have written a
- 8 Forward. I have never asked her that question.
- 9 Q. CTR never asked her to submit a draft of a
- 10 Forward as far as you know; true?
- 11 A. I have no --
- MR. ALLINDER: Object to the form.
- 13 A. -- knowledge of that.
- MR. ALLINDER: Excuse me. Excuse me.
- 15 Object to the form of the question. You got to pause
- 16 a bit. Thank you.
- 17 Q. And when her paper was published it didn't
- 18 contain her interpretation of the data, did it?
- 19 MR. ALLINDER: Object to the form of the
- 20 question.
- 21 A. I think it contained the data.
- 22 Q. So what the biomedical community got with regard
- 23 to Dr. Jeffries' -- Dr. Henry's data was an
- 24 interpretation by Dr. Sommers, not an interpretation
- 25 by Dr. Henry; true?

- 1 MR. ALLINDER: Object to the form of the
- 2 question.
- 3 A. I don't think that's true. I think the entire
- 4 volume is there for the biomedical community. Dr.
- 5 Sommers' interpretation is a quarter of a page or a
- 6 third of a page, something like that, and then you
- 7 have a large document giving all of the information
- 8 with the interpretation of the information in the
- 9 text.
- 10 Q. And Dr. Sommers, of course, is an employee of
- 11 CTR?
- 12 A. I don't know what he is now. He was at the
- 13 time.
- 14 Q. And at the time a company owned by the tobacco
- 15 industry?
- 16 A. I don't know the exact legal relationships.
- 17 MR. GILL: This is a good point to break.
- 18 MR. ALLINDER: Okay.
- 19 (Luncheon recess taken from 12:10 to 1:13
- 20 p.m.)
- 21 (Reporter's note: 3 hours, 19 minutes of
- 22 running testimony to this point.)
- 23 AFTERNOON SESSION
- 24 BY MR. GILL:
- 25 Q. Dr. Rubin, you will recall before our lunch

- 1 break we were discussing in general the subject of
- 2 allegations of suppression with respect to the
- 3 research funding by CTR. You do recall that?
- 4 A. I recall our discussion.
- 5 Q. Okay. In addition to Doctors Homburger and Dr.
- 6 Henry that we -- that we have discussed, are there
- 7 any other individuals that you have located in your
- 8 review of the documents that expressed allegations
- 9 that there was some attempt to suppress or censor
- 10 their research results?
- 11 A. I don't recall any at this time.
- 12 Q. And I take it that you attempted to review the
- 13 documents that you were provided as carefully as
- 14 possible with respect to the possibility of that
- 15 issue arising through such allegations?
- 16 A. Well, you would agree with me that I'm not
- 17 talking from notes and I do not have all of the
- 18 documents with me here, so that per force I am
- 19 responding to your questions really from my immediate
- 20 recall so that if any of my answers really are
- 21 incomplete and you can draw my attention to them,
- 22 perhaps you'll refresh my memory. I -- I can't
- 23 guarantee you that I have perfect recall, and it may
- 24 be that in this very substantial review that I have
- 25 made that not everything comes to mind immediately.

- 1 So I think that my answers have to be taken in that
- 2 context.
- 3 Q. And that qualification is accepted, Dr. Rubin.
- 4 But in other words, subject to something jogging your
- 5 memory as you sit here at the moment, you can't think
- 6 of any other individuals who made similar
- 7 allegations?
- 8 A. No.
- 9 Q. And I take it you recognized that this was an
- 10 issue or subject that was likely to come up during
- 11 the deposition today?
- 12 A. Well I have no knowledge of what was going to
- 13 come up. My instructions are simply to answer all
- 14 questions truthfully and to the best of my ability.
- 15 Q. Did you give any thought yourself in preparing
- 16 for the deposition as to what types of issues or
- 17 subjects might be discussed during your deposition?
- 18 A. In general yes, but specifically no.
- 19 Q. What did you think about in general might come
- 20 up?
- 21 A. Well I thought we would discuss the quality of
- 22 research done by the CTR, the quality of the
- 23 journals, the nature of other funding, the types of
- 24 institutions that received funding, the integrity of
- 25 the members of the SAB, their qualifications for

- 1 evaluating grants. Those seem to me to be the most
- 2 important items to consider in response to the
- 3 allegations made about the CTR.
- 4 Q. And the things that you've just recited, if I'm
- 5 not mistaken, were the primary focus of your
- 6 investigation; correct?
- 7 A. They were the primary focus, yes.
- 8 Q. Now your -- your Expert Report has got a -- a
- 9 brief reference to the subject of public relations
- 10 and you point out I think in your report that it's
- 11 not unusual that there be some public relations
- 12 aspect to the release of a research study. Is that a
- 13 fair way to put it?
- 14 A. If -- if the research study is of sufficient
- 15 general interest it is not at all uncommon for
- 16 investigators, and administrators, to be interviewed
- 17 by reporters and for lay versions of the research to
- 18 be disseminated to the press or other media.
- 19 Q. Disseminated through press releases in those
- 20 situations?
- 21 A. It's --
- MR. ALLINDER: Ah --
- 23 A. Sometimes it's press releases. All
- 24 institutions, including universities, research
- 25 institutes, occasionally have press releases. In

- 1 other instances reporters receive copies of journals
- 2 before they're published and have -- with have an
- 3 embargo date; that is, stories regarding the articles
- 4 cannot appear before the journal is published, but
- 5 they may on their own interview the investigators
- 6 before the actual publication, delay the publication
- 7 of a story after the publication of the journal. So
- 8 there are different methods. There may be cases
- 9 where some investigators want their own work
- 10 publicized and will call reporters. I wouldn't doubt
- 11 that that happens, it's legitimate.
- 12 Q. But you're no -- you don't regard yourself as an
- 13 expert in the field of public relations?
- 14 A. Quite the contrary. I consider that an area in
- 15 which I may even be deficient.
- 16 Q. And you're not an expert in any -- any aspect of
- 17 how public relations is conducted?
- 18 MR. ALLINDER: Objection for the form of
- 19 the question.
- 20 Q. Is that fair to say?
- 21 MR. ALLINDER: Same objection.
- 22 A. Well, I'm not an expert. No, I, -- my view of
- 23 public relations is that of any other layman in the
- 24 field. I haven't seen any paparazzi around medical
- 25 researchers but even that may come some day.

- 1 Q. But as a lay person, is it your understanding
- 2 that one of the purposes of public relations is to
- 3 persuade the general public to a particular position
- 4 or proposition?
- 5 MR. ALLINDER: Objection to the form of the
- 6 question.
- 7 A. The public relations that I am familiar with is
- 8 more to -- to disseminate information about the
- 9 institution; for instance, universities want the
- 10 important research results disseminated to the lay
- 11 press. This will enhance the reputation of the
- 12 institution, and as a result better students will
- 13 apply for admission, better graduate students may
- 14 want to do research there, faculty may wish to be
- 15 recruited to that institution, donors may wish to
- 16 endow such institutions, so there are a lot of
- 17 benefits to be derived from a -- a good reputation,
- 18 and all institutions that perform research to my
- 19 knowledge do have public relations staffs or -- or
- 20 some equivalent.
- 21 Q. There's a lot to be gained from a good
- 22 reputation, not only in the field of medicine, but in
- 23 many other fields as well?
- 24 A. I think there are some biblical expressions or
- 25 citations to that effect.

- 1 Q. And one of -- from a lay person's perspective,
- 2 one of the goals of public relations would be
- 3 basically to commun -- communicate information in a
- 4 favorable light to the entity that is engaging in
- 5 public relations; true?
- 6 A. Would you -- would you please repeat that. I
- 7 didn't quite get that.
- 8 Q. Sure. Would you read it back, please.
- 9 (The record was read by the reporter.)
- 10 A. I -- please rephrase that.
- 11 Q. Sure, I'll been happy to.
- 12 One of the goals of public relations is, first
- 13 of all, to communicate information; correct?
- 14 A. That is correct.
- 15 Q. And to attempt to communicate the information in
- 16 a manner that will be perceived as favorable to the
- 17 interests of the party who is employing the public
- 18 relations; true?
- 19 A. That would seem to be reasonable.
- 20 Q. Now you also have certain opinions in your
- 21 report in connection with the special projects that
- 22 were undertaken as a result of CTR funding; correct?
- 23 A. That's correct.
- 24 Q. And if I understood your report correctly, in a
- 25 general sense what you found was that you saw no

- 1 impropriety with respect to the manner in which the
- 2 special projects of the CTR were funded and
- 3 conducted; is that true?
- 4 A. That is correct.
- 5 Q. And no impropriety with respect to the
- 6 involvement of lawyers for the tobacco industry in
- 7 CTR special projects?
- 8 MR. ALLINDER: Objection to the form of the
- 9 question.
- 10 A. I didn't see any impropriety in that.
- 11 Q. And I think what you're saying in your report is
- 12 that simply because a lawyer might be involved in
- 13 some manner in the funding or the conduct of a
- 14 research study, by itself that doesn't establish that
- 15 there's any bias involved; is that true?
- 16 A. Does not imply any bias on the part of the
- 17 investigator.
- 18 Q. And does your opinion with respect to the
- 19 involvement of lawyers in CTR special projects go
- 20 beyond the parameters of the opinion that I just
- 21 repeated or recited to you?
- MR. ALLINDER: Object to the form of the
- 23 question.
- 24 A. I don't really understand the question. I may
- 25 be getting dense, but --

- 1 Q. It wasn't well --
- 2 A. -- it's a little vague.
- 3 Q. It wasn't well put and I apologize. Let me try
- 4 again.
- 5 You've told us that you don't find any
- 6 implication of bias in the result of a research
- 7 project simply because a lawyer happened to be
- 8 involved in either the funding or the conduct of the
- 9 research; true?
- 10 A. I would agree with that.
- 11 Q. Okay. Now beyond that opinion, have you reached
- 12 any other opinions on the subject of lawyers
- 13 involvement in CTR projects?
- MR. ALLINDER: Object to the form of the
- 15 question.
- 16 A. Well like every other layman I have my own
- 17 opinion of lawyers.
- MR. ALLINDER: But that's not what he asked
- 19 you. Now let's respond to the question. It's too
- 20 early in the afternoon to be going off on tangents
- 21 here.
- 22 A. My -- my own understanding of the issue is
- 23 whether the presence of lawyers by itself was
- 24 improper or would influence an investigator in any
- 25 particular way. My answer would be no. I -- at this

- 1 moment I don't have any other opinions about lawyer
- 2 involvement.
- 3 Q. And so I think what I hear you telling me is
- 4 that depending on the circumstances and the actual
- 5 conduct involved, the lawyer's involvement may or may
- 6 not result in any bias with respect to the eventual
- 7 publication of a research study?
- 8 A. That's not what I said. It's hard for me to
- 9 understand how the involvement of a lawyer could
- 10 influence a research study in any way.
- 11 Q. Did you express that opinion to Mr. Allinder at
- 12 the time that you were retained as a consultant in
- 13 this matter?
- 14 A. I don't recall that the issue came up in the way
- 15 that you're putting it.
- 16 Q. In other words, you can't conceive of any set of
- 17 circumstances where the involvement of a lawyer in
- 18 the funding or conduct of a research study might
- 19 cause the results to be biased?
- 20 MR. ALLINDER: Object to the form of the
- 21 question.
- 22 A. There's an assumption in my answer. My
- 23 assumption here is that the investigator is an honest
- 24 person who conducts his research with integrity, and
- 25 therefore I can't imagine how a lawyer or a

- 1 politician or an executive or anyone else could
- 2 influence the data that are obtained from a research
- 3 study. On the other hand, if you or anyone else is
- 4 prepared to show me a published paper that contains
- 5 fraudulent data designed to deceive the public or to
- 6 accommodate a lawyer, I would be willing to examine
- 7 that and come to my own conclusions. Thus far in my
- 8 analysis of many, many papers, I have not come across
- 9 any situation where I felt that situation would
- 10 obtain, but I am willing to consider any accusation
- 11 that you may make against an individual investigator
- 12 or against the journal in which the paper appeared or
- 13 against the paper itself.
- 14 Q. But if I understand you correctly, your initial
- 15 hypothesis starting out is that a researcher would
- 16 resist any effort on the part of an attorney to
- 17 influence the results of their study?
- 18 A. My assumption is that an investigator who is --
- 19 degrees to undertake a research study will do so in
- 20 an honest attempt to arrive at the truth of some
- 21 question that he is investigating. Now there are
- 22 accepted ways of attempting to arrive at the truth.
- 23 Granted the truth is a philosophical concept and when
- 24 we deal in science we don't deal with absolute truth,
- 25 we deal with preponderance of evidence and things

- 1 like that, but there are occasionally instances of
- 2 scientific misconduct. Those could also be called
- 3 scientific fraud, those instances. And there are
- 4 certain types of behavior that are considered
- 5 evidence of scientific misconduct. As I've indicated
- 6 before, they include plagiarism, misap --
- 7 misappropriation of other people's data,
- 8 falsification of data, fabrication of nonexistent
- 9 data. There may be some others that don't come to
- 10 mind. Now for an investigator to be biased in his
- 11 approach to a research project by anyone, he would
- 12 have to commit some form of scientific misconduct,
- 13 because he would not be searching for the truth, he
- 14 would be searching for some false data or false
- 15 interpretation to accommodate the wishes of the
- 16 sponsor or the lawyer, the executive, or what have
- 17 you. Now I can't sit here and tell you that it is
- 18 impossible that such a situation occurred. However,
- 19 I am awaiting some documentation of unethical or
- 20 fraudulent behavior. And if you have such evidence,
- 21 I am prepared to change my mind about that specific
- 22 instance, and I'm prepared to examine very closely
- 23 the credentials of the investigator, his conduct, the
- 24 quality of the paper, the conclusions, or any
- 25 evidence that you may have that this was in any way

- 1 dishonest.
- 2 Q. And you'll let those chips fall where they may?
- 3 A. Let them fall where they may.
- 4 Q. Now the examples that you just cited of
- 5 scientific misconduct, would you agree those would be
- 6 among the most egregious examples of such misconduct
- 7 in connection with the publication of research
- 8 studies?
- 9 MR. ALLINDER: Objection to the form of the
- 10 question.
- 11 A. I didn't say they were the most egregious.
- 12 Q. Among?
- 13 A. They are -- they are -- scientific misconduct
- 14 has been defined by a committee of the NIH, and I
- 15 think with reasonable precision.
- 16 Q. What's your understanding of the definition?
- 17 A. I gave them to you just previously. They're in
- 18 the record.
- 19 Q. Did it include those examples of plagiarism and
- 20 false data, those things?
- 21 A. Let -- let me repeat. As -- as I remember, and
- 22 this may be incomplete, --
- 23 Q. Just your understanding.
- 24 A. -- my understanding of the guidelines to
- 25 identify scientific misconduct include plagiarism,

- 1 misappropriation of data; namely, taking someone
- 2 else's data and calling it your own.
- 3 Q. Plagiarism?
- 4 A. It's a little different. You may be taking raw
- 5 data that's never been published and incorporating it
- 6 as part of your own data. Falsification of data.
- 7 That means changing the numbers. And the last would
- 8 be fabrication of data, meaning creation of
- 9 experiments and data that were never done. Now that
- 10 may not been complete, but that's my understanding of
- 11 scientific misconduct.
- 12 Q. Are there some lesser degrees --
- 13 MR. ALLINDER: Excuse me, Dick. I have an
- 14 emergency phone call. When you get to the point
- 15 where you might be able to accommodate a short break,
- 16 would you do so, please.
- 17 MR. GILL: Let's do it right now.
- 18 MR. ALLINDER: That's okay. I'm willing to
- 19 wait a few minutes in order to accommodate the
- 20 question.
- 21 MR. GILL: Is a couple minutes okay?
- MR. ALLINDER: Yes. That's fine.
- 23 BY MR. GILL:
- 24 Q. To your understanding are there lesser degrees
- 25 of scientific misconduct other than those that you

- 1 just mentioned?
- 2 A. To my knowledge the criteria for misconduct are
- 3 not graded according to severity, they are either
- 4 misconduct or they are not misconduct.
- 5 Q. So things falling outside the parameters of the
- 6 situations that you just recited, assuming that your
- 7 memory of this is correct, --
- 8 A. Yes.
- 9 Q. -- would not rise to the level of scientific
- 10 misconduct as far as you're concerned?
- 11 A. You are trying to get a simple answer to a
- 12 complex problem, and let me tell you what I mean by
- 13 that. There are many gray areas in human affairs,
- 14 and particularly in science error is frequent and is
- 15 an integral part of the scientific process. Science
- 16 proceeds in many ways through the creation of error,
- 17 and error can be poor experiments or experiments in
- 18 which -- which the circumstances represent the
- 19 special case that cannot be generalized to other
- 20 conditions, error can be in the interpretation of
- 21 data, the conclusions that are derived from
- 22 experiments may be erroneous, the basis of the
- 23 experiment may have in it factors that are not
- 24 realized at the time; for instance, inappropriate
- 25 animals or animals that later turn out to have been

- 1 infected with something. There are many sources of
- 2 error. There is no ethical stigma attached to error,
- 3 error has to be corrected, but that is why important
- 4 studies invariably have to be replicated. People do
- 5 not accept in the scien -- people in the scientific
- 6 community do not ordinarily accept a single paper as
- 7 having revealed the truth. If it's a new gene, if
- 8 it's a new biochemical pathway, if it's a new toxic
- 9 effect, --
- 10 Q. I think I understand. That's okay.
- 11 A. -- if it's important it is replicated by other
- 12 people because of the possibilities of error. So
- 13 error and fraud or error and scientific misconduct
- 14 have to be very rigorously separated, because error
- 15 is the way that science goes, and I don't know of any
- 16 scientist, including myself, who would want to be
- 17 crucified for every error that has crept into his
- 18 work over a lifetime career.
- 19 Q. But, Doctor, would it --
- 20 A. Please let me finish.
- 21 Q. I think I understand what you're saying and I'm
- 22 not --
- 23 A. I understand, but you haven't let me finish.
- 24 Q. Go ahead.
- 25 A. So in between fraud or scientific misconduct and

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- 1 unavoidable error are often gray areas where an
- 2 investigator may have looked at the data a little
- 3 more optimistically than he or she should where you
- 4 may have -- may say that he or she really should have
- 5 picked up the error but he was busy, he did it too
- 6 fast, things like that. That's also not scientific
- 7 misconduct. So when you asked me that question, and
- 8 I'm returning finally to what scientific misconduct
- 9 is, I think it's very important to be rigorous,
- 10 virtually in the same way that you would be with a
- 11 felony or something akin to that. I'm not an expert
- 12 in the law. You have to be very, very rigorous
- 13 because error is such an integral part of science.
- 14 Q. Using that rigorous standard, would an act of
- 15 intimidation by someone on behalf of a funding
- 16 organization fall into the scientific misconduct
- 17 category or into the error category?
- 18 MR. ALLINDER: Object to the form of the
- 19 question?
- 20 A. Neither. I mean intimidation is -- has nothing
- 21 to do with science. We're talking about -- I was
- 22 talking to you about scientific error and scientific
- 23 misconduct and the possible gray areas. It has
- 24 nothing to do with intimidation. It doesn't --
- 25 you're talking about something totally different.

- 1 Q. All right. And then we'll go to Mr. Allinder's
- 2 phone call, but in other words, you don't feel
- 3 prepared to evaluate whether or not acts of a funding
- 4 organization with respect to the publication of
- 5 research material would or would not constitute
- 6 scientific misconduct?
- 7 A. Funding --
- 8 MR. ALLINDER: Excuse me. Object to the
- 9 form of the question.
- 10 A. There's a fundamental lack of understanding
- 11 here. Funding organizations do not perform science.
- 12 They cannot have -- be guilty of scientific
- 13 misconduct or scientifically proper conduct. They do
- 14 not do experiments, they don't write papers, they
- 15 don't subject themselves to peer-review. They are
- 16 funding organizations. It's individual scientists
- 17 who are either quilty of scientific misconduct, of
- 18 error, or of doing correct experiments. Now when you
- 19 come to the individual scientists, what you really
- 20 want to know is would a scientist be intimidated by a
- 21 funding organization into committing scientific
- 22 misconduct? Well, I don't know enough about the
- 23 nature of human beings and who is a coward.
- 24 Q. Some might and some might not?
- 25 A. Well, I think there are cowards in this world

- 1 who are easily intimidated. I think there are
- 2 stronger people who could not be conceivably
- 3 intimidated by anyone. But where you have so many
- 4 sources of funding, many voluntary agencies, many
- 5 government agencies, it's almost inconceivable to me
- 6 that somebody would be intimidated by one funding
- 7 source. Why should he be? If he has good work, he
- 8 says, Nuts to you, I'll get funded by the National
- 9 Cancer Institute or the American Heart Association or
- 10 the Cystic Fibrosis Foundation, the American Lung
- 11 Association. I mean the idea that a reputable and
- 12 competent scientist could be intimidated is
- 13 ludicrous.
- 14 Q. And that's the opinion with which you approached
- 15 this particular problem?
- MR. ALLINDER: Objection to the form of the
- 17 question.
- 18 A. Well I didn't approach this problem because I
- 19 had never thought about it before.
- 20 MR. GILL: Go ahead, Bill.
- 21 MR. ALLINDER: Thank you, I appreciate it.
- MR. GILL: Sure.
- MR. ALLINDER: I'll try to make it short.
- 24 (Recess from 1:44 to 1:55 p.m.)
- 25 BY MR. GILL:

- 1 Q. Now Dr. Rubin, regardless of whether some
- 2 attempted act of intimidation by a funding agency
- 3 related to research constitutes scientific
- 4 misconduct, it would certainly constitute misconduct;
- 5 would it not?
- 6 A. You'd have to give me specific examples. It's a
- 7 very broad statement, and I really would have to know
- 8 the particulars.
- 9 Q. Well without spending the time to go through a
- 10 number of particulars, is it your understanding that
- 11 intimidation is an attempt to alter conduct?
- MR. ALLINDER: Objection to the form of the
- 13 question.
- 14 A. I mean this is philosophy now. You're -- you're
- 15 asking me things which I don't consider myself an
- 16 expert. This is --
- 17 Q. Just relay your understanding.
- 18 A. -- it's philosophy -- well it's philosophy or
- 19 psychology, what is intimidation, and intimidation
- 20 can be putting a gun to someone's head and
- 21 threatening to blow his brains out or --
- 22 Q. If they don't do something that you want them
- 23 to?
- 24 A. That's right. Or intimidation can be telling
- 25 your wife that you're not going to take her out for

- 1 dinner if she doesn't do something for you, so I
- 2 think we -- we should really not use such broad terms
- 3 and get down to specifics, and I'm pleased to respond
- 4 to any of your questions that I'm able to answer.
- 5 Q. But in both of your examples that you used the
- 6 intimidating act was an attempt to alter some
- 7 conduct; correct?
- 8 A. Well I think semantically intimidation is
- 9 designed to make someone timid; that is, to extract
- 10 some kind of a behavior such as giving him your
- 11 money, doing something else.
- 12 Q. And -- and if a funding agency were to
- 13 intimidate researchers by threatening to withhold
- 14 funding if the researchers didn't alter in some
- 15 manner the published research study, that would be
- 16 misconduct; would it not?
- 17 MR. ALLINDER: Object to the form of the
- 18 question.
- 19 A. Well, you're -- let -- let me see if I can
- 20 clarify the question and ask you whether this is what
- 21 you mean. Intimidation by a funding agency in -- in
- 22 your lexicon is a threat to withhold funds designed
- 23 to foster scientific misconduct or fraudulent
- 24 behavior on the part of the recipient.
- 25 Q. Yes.

- 1 A. I do not approve of such activity.
- 2 Q. And when you mentioned that scientific research
- 3 is an honest attempt to determine the truth, is that
- 4 the way that you view the role of lawyers?
- 5 MR. ALLINDER: Object to the form of the
- 6 question.
- 7 A. You want me to comment on lawyers' activities?
- 8 Q. Based upon your perception of the attitudes of
- 9 lawyers, do you believe that lawyers representing
- 10 clients are interested in an honest attempt to
- 11 determine the truth?
- MR. ALLINDER: Object to the form of the
- 13 question.
- 14 A. I think sometimes they may be, but the history
- 15 of the American legal system suggests that it is
- 16 adversarial and is in many instances a game of shirts
- 17 and skins. The lawyers who defended O. J. Simpson I
- 18 believe were less interested in obtaining the truth
- 19 than in having their client found innocent. In
- 20 general I think that the function of a lawyer is to
- 21 defend the interests of his client within the bounds
- 22 of legal ethics. And in an adversarial system truth
- 23 may sometimes suffer.
- 24 Q. The role of the lawyer in our system is
- 25 basically to defend or advance the interests of the

- 1 lawyer's client; --
- 2 MR. ALLINDER: Object to the form --
- 3 Q. -- true?
- 4 MR. ALLINDER: -- of the question.
- 5 A. Insofar as he follows appropriate procedure and
- 6 is ethically correct. I think a lawyer would be
- 7 behaving improperly if he denied what is true or
- 8 stated what he knew to be false as true.
- 9 Q. And would you agree that a lawyer would also be
- 10 acting improperly if he threatened a third party in
- 11 advance of his client's interests?
- MR. ALLINDER: Object to the form of the
- 13 question.
- 14 A. I don't know. I think there are laws about
- 15 threats, assault and battery, things like that. I
- 16 don't think you're permitted to threaten people by
- 17 law. I'm not a lawyer. I --
- 18 Q. I'm simply asking for your own understanding.
- 19 A. My understanding is that it's -- that it's not
- 20 legal to -- to threaten people. They can sue you.
- 21 Q. Even on behalf of a client?
- MR. ALLINDER: Object to the form of the
- 23 question.
- 24 A. Well you're getting me into areas where I don't
- 25 know much, but -- but I just intuitively suspect that

- 1 the law doesn't permit you to threaten people. You
- 2 can go to jail for that, can't you?
- 3 Q. Now if a funding organization were to engage in
- 4 some attempt to intimidate a research scientist with
- 5 respect to what the scientist would actually publish
- 6 from a given study, regardless of whether or not the
- 7 attempt succeeded, such an attempt would not be
- 8 consistent with full and fair disclosure of research
- 9 studies, would it?
- 10 MR. ALLINDER: Object to the form of the
- 11 question.
- 12 A. I think that's such a general question that it
- 13 would profit from being more specific.
- 14 Q. It simply follows; does it not, Dr. Rubin, that
- 15 if a research organization, a funding organization,
- 16 attempted to intimidate one of their researchers to
- 17 alter the content of a study, such an act would be
- 18 inconsistent with full and independent disclosure of
- 19 research results; true?
- 20 A. Well would you --
- MR. ALLINDER: Excuse me. Excuse me.
- 22 Object to the form of the question. Go ahead.
- 23 A. Would you tell me what you mean by
- 24 "intimidate"?
- 25 Q. Threaten to withhold funding if the researcher

- 1 didn't alter the language of the research study in
- 2 some manner.
- 3 A. Well that's laughable. I mean who would be
- 4 intimidated by that? I cannot imagine any competent
- 5 investigator being intimidated by an organization who
- 6 -- that threatens to withhold funding. Any
- 7 investigator that I know would tell them exactly what
- 8 they can do with their money and tell him, you know,
- 9 there's a lot of places I can get money, I'll, you
- 10 know, --
- 11 Q. Dr. Rubin --
- 12 A. I'm trying to avoid profanity, as you understand
- 13 what an investigator might tell such an
- 14 organization. But that is hardly intimidation,
- 15 because several things: One is it would become
- 16 well-known to the scientific community in which case
- 17 they wouldn't get application for grants. Second,
- 18 they would become a laughing stock. Third, the
- 19 investigator would -- would publish the paper as he
- 20 saw fit anyway. Nobody is going to give into that
- 21 kind of nonsense. And he'll get his money somewhere
- 22 else. The whole scenario is ridiculous.
- 23 Q. So you come at this question from the viewpoint
- 24 that no one, no researcher would ever been subject to
- 25 being intimidated in that fashion?

- 1 MR. ALLINDER: Object to the form of the
- 2 question.
- 3 A. I do not know of any such instances.
- 4 Q. Now aside altogether from whether or not the
- 5 researcher was or was not intimidated, the attempt to
- 6 intimidate would be inconsistent with full and
- 7 independent disclosure of research results from the
- 8 standpoint of the funding organization; true?
- 9 MR. ALLINDER: Object to the form of the
- 10 question.
- 11 A. It's very hard to understand what you mean. Do
- 12 you mean if the investigator changed a paper?
- 13 Q. No, I don't care whether he does or doesn't,
- 14 only that the funding organization makes the effort
- 15 to get the researcher to alter the paper.
- 16 A. Well what does -- what are they trying to get
- 17 him to do? Alter data? Change numbers?
- 18 Q. Alter any portion of the paper.
- 19 MR. ALLINDER: Object to the form of the
- 20 question.
- 21 A. Well it depends what they're trying to get him
- 22 to do. If they know that -- for whatever reason,
- 23 that he is in serious error, they would be doing a
- 24 public duty by --
- 25 Q. Threatening him?

- 1 A. -- making -- making him aware of the error of
- 2 his ways. That would be doing him a favor so he
- 3 would not publish something that he would regret; it
- 4 would be doing the public a favor because misleading
- 5 information would not be out in the literature.
- 6 Q. There's a difference between making someone
- 7 aware of a point of view and a threat; true?
- 8 A. That is correct.
- 9 Q. And in the situation where the making aware of
- 10 the point of view is accompanied by a threat, that
- 11 situation would be inconsistent with full and
- 12 independent disclosure of research results; true?
- 13 MR. ALLINDER: Object to the -- object to
- 14 the form of the question.
- 15 A. I think the way -- the way you put it, if I were
- 16 going to -- to think of it in very simplistic terms;
- 17 that is, you change the data or else I'm not going to
- 18 fund you in the future regardless of the quality of
- 19 your research, such a hypothetical scene would not be
- 20 proper.
- 21 Q. And it would be inconsistent with any
- 22 organizations that took a position that its
- 23 researchers were completely independent and would
- 24 fully disclose their results?
- MR. ALLINDER: Object to the form of the

- 1 question.
- 2 Q. True?
- 3 A. Well, yes and no. In a strict sense possibly,
- 4 but if one looks at the organization, one looks at
- 5 the big picture; that is, the totality of the
- 6 operation of the organization, because any single
- 7 incident may have all kinds of special
- 8 characteristics about it. An organization that
- 9 consistently threatens researchers and that
- 10 consistently tries to make them conform to whatever
- 11 preconceived notions they have would not be acting
- 12 with full disclosure certainly and would be actually
- 13 acting in an inappropriate way. An organization that
- 14 has a long history of providing funds to independent
- 15 researchers and encouraging independent publication
- 16 in high-quality journals, that has a record of
- 17 supporting investigators of great reputation and high
- 18 integrity from institutions of unimpeachable quality
- 19 should be considered in the totality of its efforts.
- 20 If there are some isolated instances that do not
- 21 represent the character of the institution, they
- 22 should be considered in isolation. And I'll give you
- 23 an example. The NIH, that's the National Institutes
- 24 of Health, is one of the crowning achievements of the
- 25 United States government and its people in my

- 1 opinion, has resulted in many breakthroughs,
- 2 scientific, medical, has done a great deal to
- 3 alleviate human suffering. In the many grants that
- 4 have been funded by NIH there are occasional or rare
- 5 instances of unquestioned scientific misconduct in
- 6 which --
- 7 Q. On the part of an NIH personnel?
- 8 A. -- on the part -- on the part of the
- 9 investigator who received NIH funding. One cannot
- 10 view the totality of the NIH program in the light of
- 11 isolated and rare instances of scientific
- 12 misconduct. There are instances of inappropriate
- 13 conduct, rare instances, on the part of personnel
- 14 within the NIH because a large organization, I
- 15 believe people have misappropriated funds or done
- 16 other things that are culpable, but one does not
- 17 indict the NIH because of the rare actions of a few
- 18 people who have done inappropriate things. In the
- 19 same way the CTR, that has funded perhaps well over a
- 20 thousand different grants, different investigators,
- 21 has resulted in the publication, I don't know, of
- 22 6000 papers by perhaps 5000 authors, if there is an
- 23 isolated incident it should be considered on the
- 24 merits of that incident. I'm not saying what the
- 25 incident is or how it should be considered, but that

- 1 should be considered as isolated if it is
- 2 inconsistent with the general program of the
- 3 organization.
- 4 Q. So as an investigator who's willing to let the
- 5 chips fall where they may, you would be willing to
- 6 excuse some incidences of threats or intimidations
- 7 with regard to altering research results as long as
- 8 they're isolated?
- 9 MR. ALLINDER: Excuse me. Object to the
- 10 form of the question.
- MR. PURDY: Object to the form. Misstates
- 12 the testimony.
- 13 A. That's not what I said.
- 14 Q. You wouldn't be willing to excuse them even if
- 15 they were isolated, would you, Dr. Rubin?
- 16 MR. ALLINDER: Object to the form of the
- 17 question.
- 18 A. Not -- see, I'm not a judge or a jury. I'm not
- 19 -- you know what Heinrich Heine said on his death
- 20 bed when his friends told him to -- this is the time
- 21 to ask for forgiveness or excuses. He said, "Don't
- 22 worry, God will forgive me, 'Ces't son metier,'
- 23 that's his business. So that's God's business. I
- 24 would examine every incident that would be -- of
- 25 which I would be made aware, and I make my own

- 1 judgment about the circumstances of that incident
- 2 whether it was appropriate or whether it was
- 3 inappropriate, but it -- whatever my judgment about a
- 4 specific incident is, if, if there are two or three
- 5 incidents out of a record of 1100 grants, I would
- 6 have to consider them suis generis.
- 7 Q. Based on your understanding of the general
- 8 nature of the 1100 grants you've worked on, and
- 9 including the CTR special projects if you wish, how
- 10 many dealt with smoke inhalation studies?
- 11 A. I don't remember.
- 12 Q. Approximately? 300? 400? 500?
- 13 A. I would be lying to you if I gave you a number.
- 14 There were other smoke inhalation studies, but I have
- 15 not analyzed the grants in that way and categorized
- 16 them that way, so I don't know.
- 17 Q. Is it 1100 grants or 6000 grants?
- 18 A. I think it's about 1100 invest -- different
- 19 primary -- principal investigators. The 6000 refers
- 20 to the number of publications that acknowledge
- 21 support from the CTR.
- 22 Q. Now out of those 1100 or so investigators, only
- 23 a handful were assigned to conduct smoke inhalation
- 24 studies; true?
- MR. ALLINDER: Excuse me. Objection.

- 1 MR. PURDY: Object to the form.
- 2 A. These investigators were not assigned to do
- 3 anything.
- 4 Q. Were funded.
- 5 A. They were -- these are for the most part what is
- 6 called investigator-initiated grants; that is, they
- 7 arise from the fertile minds and imaginations of
- 8 individual investigators who then submit an
- 9 application to do research according to their own
- 10 inclinations. So they're not assigned to do
- 11 anything.
- 12 Q. But Dr. Rubin, with respect to the number of
- 13 investigators who were funded by CTR to conduct smoke
- 14 inhalation studies, we're talking about a number
- 15 that's less than 10; are we not?
- 16 A. Oh, I don't know.
- 17 MR. ALLINDER: Object to the form of the
- 18 question.
- 19 A. I told you --
- 20 MR. ALLINDER: Excuse me. You need to
- 21 pause for just a minute after the question, give me
- 22 an opportunity to object if I see fit.
- 23 THE WITNESS: You know, I'm a man of bad
- 24 habits.
- MR. ALLINDER: That's okay.

- 1 THE WITNESS: That's what my wife tells me.
- 2 MR. ALLINDER: The court reporter will
- 3 appreciate us not talking over each other.
- 4 Q. The question was: Is the number of
- 5 investigators who were funded by CTR to conduct smoke
- 6 inhalation studies more or less than 10?
- 7 MR. PURDY: Object to the form, asked and
- 8 answered.
- 9 A. I would not be truthful if I answered that
- 10 question yes or no because I simply don't have the
- 11 answer. I'm prepared to derive it by studying grants
- 12 all over again, but I --
- 13 Q. But you haven't done that so far?
- 14 A. I have not done that.
- 15 Q. And we know that two of the investigators who
- 16 did complain, who put forth allegations that their
- 17 research was subject to some type of censoring by the
- 18 CTR, were both doing smoke inhalation studies;
- 19 correct, Homburger and Dr. Henry?
- 20 A. Well, since I brought up the subject of
- 21 investigator-initiated grants, remember that those
- 22 two were not investigator-initiated, they're
- 23 contracts, and a contract is not an
- 24 investigator-initiated grant, it's quite the
- 25 reverse. The very nature of a contract is that the

- 1 organization or company or the government or whatever
- 2 it is wants to find the answer to some question or
- 3 develop some kind of a machine, some purpose
- 4 associated with the goals of the institution, and
- 5 then they contract with someone to do that work. So
- 6 in that sense it's not -- it's different from
- 7 investigator-initiated research grant.
- 8 Q. Would you be surprised, Dr. Rubin, if Dr.
- 9 Homburger's studies on smoke inhalation started out
- 10 as grants and then were converted into contracts by
- 11 CTR?
- MR. ALLINDER: Object to the form of the
- 13 question.
- 14 A. First, the history of that investigator, as I
- 15 understand it, is being supported by grants. Whether
- 16 the term "conversion" is correct or whether the term
- 17 that he was then given a contract, I can't tell you
- 18 that. I -- I don't know the ins and outs of the
- 19 administrative aspects of it. Suffice it to say, he
- 20 was awarded a contract to develop a model of
- 21 inhalation -- smoke inhalation-induced cancer of the
- 22 lung.
- 23 Q. Are you familiar with an investigator by the
- 24 name of Dr. Lutenberger from Switzerland?
- 25 A. Who?

- 1 Q. Leuchtenberger.
- 2 A. Leuchtenberger?
- 3 Q. Leuchtenberger.
- 4 A. Leuchtenberger.
- 5 Q. That's the one.
- 6 A. There's two.
- 7 MR. ALLINDER: Is that an affirmative
- 8 answer?
- 9 Q. There's a Doctor and Mrs. Dr. Leuchtenberger.
- 10 A. Yes, they're both -- the Leuchtenbergers were a
- 11 husband and wife team in Switz -- working in
- 12 Switzerland.
- 13 Q. And were they --
- 14 A. Actually I believe they had worked previously in
- 15 Boston, then went to Lausanne, is it?
- 16 Q. Did they receive some grants from CTR?
- 17 A. I believe they did, yes.
- 18 Q. And they did some smoke inhalation studies
- 19 related to mice?
- 20 A. Yes.
- 21 Q. And they complained that their research was
- 22 censored in some way by CTR --
- MR. ALLINDER: Object.
- 24 Q. -- or its predecessor?
- MR. ALLINDER: Object to the form of the

- 1 question.
- 2 A. I am not really aware of the -- any precise
- 3 complaints on their part. I have not, as I recall --
- 4 without any notes or documents in front of me, I
- 5 don't recall seeing any letter from them in which
- 6 they complained about being censored.
- 7 Q. Have you seen any document that contained a
- 8 reference to complaints by Doctors Leuchtenberger?
- 9 MR. ALLINDER: Object to the form of the
- 10 question.
- 11 A. I --
- 12 Q. Regarding CTR censorship?
- MR. ALLINDER: Same objection.
- 14 A. I have -- I recall the name of the
- 15 Leuchtenbergers being mentioned, but I need to have
- 16 my memory refreshed as to the precise documentation
- 17 by the Leuchtenbergers of what their complaint was.
- 18 Q. Do you recall complaints by a Dr. Auerbach with
- 19 respect to censorship by CTR?
- 20 MR. ALLINDER: Object to the form of the
- 21 question.
- 22 A. Well I knew Oscar Auerbach personally. I'm not
- 23 a -- I don't recall that, but --
- 24 Q. Do you recall that Dr. Auerbach did grant
- 25 research funded by CTR?

- 1 MR. ALLINDER: Object to the form of the
- 2 question.
- 3 A. He -- he worked on beagles who were given smoke
- 4 inhalation through tracheostomies.
- 5 Q. So he was also engaged in research dealing with
- 6 smoke inhalation in animals?
- 7 MR. ALLINDER: Object to the form of the
- 8 question.
- 9 A. He was.
- 10 Q. And -- and you're indicating you don't recall
- 11 that he complained of censorship on the part of CTR
- 12 with respect to the result of his studies?
- 13 MR. ALLINDER: Object to the form of the
- 14 question.
- 15 A. I have to have my memory refreshed by the
- 16 document. If you could provide it to me, I'll
- 17 comment on it.
- 18 Q. Now, do you appreciate that smoke inhalation
- 19 studies that established a link between smoke and
- 20 disease would not be good information as far as the
- 21 tobacco companies are concerned?
- MR. ALLINDER: Object to the form of the
- 23 question.
- 24 A. I don't think that they would be happy to hear
- 25 the news at that time.

- 1 Q. And that type of a study, a smoke inhalation
- 2 study with an animal that showed the development of
- 3 cancer, would be the type of study that would confirm
- 4 epidemiological results establishing the strong
- 5 association between smoking and different forms of
- 6 cancer; true?
- 7 MR. ALLINDER: Object to the form of the
- 8 question.
- 9 A. Well it wouldn't be different forms of cancer.
- 10 It would be lung cancer.
- 11 Q. Whatever the type of cancer was that the -- that
- 12 the animals developed, whether it was lung cancer or
- 13 laryngeal cancer, whatever kind, it would --
- 14 A. Well how would it be laryngeal cancer if they
- 15 had a tracheostomy?
- 16 Q. Well I'm referring now to the hamsters that we
- 17 talked about this morning.
- 18 A. I thought you were talking about Auerbach.
- 19 Q. I was. Auerbach's got the beagles; correct?
- 20 A. Yeah.
- 21 Q. Okay. And Dr. Homburger's got the hamsters;
- 22 correct?
- 23 A. Well they weren't contemporaneous, were they?
- 24 Q. No. But Dr. Homburger did research for CTR
- 25 dealing with smoke inhalation for hamsters.

- 1 A. Correct.
- 2 Q. And he thought he had developed laryngeal --
- 3 laryngeal cancer during his studies in the hamsters?
- 4 A. Well I thought he thought that the hamsters had
- 5 developed it, --
- 6 Q. Yes.
- 7 A. -- not that he had developed it.
- 8 Q. Well that he had induced the development --
- 9 A. Oh.
- 10 Q. -- by forcing the hamsters to inhale the smoke.
- 11 A. Yes, that's correct.
- 12 Q. And Dr. Auerbach thought that his beagles had
- 13 developed some form of cancer as a result of inhaling
- 14 the smoke?
- MR. ALLINDER: Objection, assumes facts not
- 16 in evidence.
- 17 Q. True?
- 18 A. I don't know. Auerbach -- what Auerbach showed
- 19 and what is accepted was squamous metaplasia of the
- 20 bronchi. Whether he developed -- whether the beagles
- 21 developed true invasive carcinoma or whether the
- 22 lesions were actually -- in the bronchi were actually
- 23 carcinoma in situ is I think an iffy matter, very --
- 24 it's really iffy, was not replicated, I think people
- 25 tried, were unable to replicate it, and even

- 1 Auerbach's pictures and data have -- have been
- 2 criticized as inconclusive.
- 3 Q. But regardless of the criticism, Auerbach
- 4 thought that the beagles had developed cancer;
- 5 correct?
- 6 A. I'm not sure that he remained with that
- 7 conviction. I think at one time he thought so, but
- 8 --
- 9 Q. And Dr. Sommers of the CTR disagreed?
- 10 MR. ALLINDER: Object to the form of the
- 11 question.
- 12 A. I believe he disagreed.
- 13 Q. Acting in the role of scientific director of the
- 14 CTR?
- MR. ALLINDER: Object to the form of the
- 16 question.
- 17 A. I don't know in what capacity, you know, whether
- 18 -- Sommers saw the slides, I believe, or the
- 19 pictures, I don't recall, either saw the pictures or
- 20 the slides, and he disagreed -- with -- with the
- 21 diagnosis of cancer.
- 22 Q. And Sommers disagreed with the diagnosis by Dr.
- 23 Homburger of laryngeal cancer in the hamsters; true?
- 24 A. That is true.
- 25 Q. And Sommers disagreed with the diagnosis of a

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- 1 higher risk of cancer through the lung inhalation
- 2 studies conducted by Dr. Henry?
- 3 MR. ALLINDER: Object to the form of the
- 4 question.
- 5 A. I think "diagnosis" would not be the word you
- 6 would really want to use. It would be --
- 7 Q. Findings?
- 8 A. -- conclusion or interpretation by Dr. Henry.
- 9 Dr. Sommers in that respect maintained that one
- 10 should abide by the commonly-accepted criteria of the
- 11 biomedical community.
- 12 Q. And the scientific director of the CTR disagreed
- 13 with the findings of the Leuchtenbergers with respect
- 14 to their smoke inhalation studies regarding mice;
- 15 true?
- 16 A. I don't -- I don't recall that.
- MR. ALLINDER: Excuse me. Excuse me.
- 18 Object to the form of the question.
- 19 A. I don't recall that. You'll have to show me the
- 20 documents.
- 21 Q. Now how many CTR special projects did you review
- 22 during the course of your investigation?
- 23 A. Well I reviewed all of those that were listed in
- 24 the compendium of special projects, I believe had
- 25 been presented to the Waxman Subcommittee of the

- 1 House of Representatives and --
- 2 Q. Do you recall approximately how many there were?
- 3 A. Oh, I don't know, 100 or some odd -- something
- 4 like that.
- 5 Q. Does 120 sound familiar?
- 6 A. I'm not going to argue about the number, because
- 7 I don't remember. But --
- 8 Q. Was that good research in your view?
- 9 A. But I want to complete my answer so that I'm not
- 10 accused of withholding information later on.
- 11 Q. Please do so then.
- 12 A. I --
- 13 Q. As long as it's responsive.
- 14 A. Well I think you will find it responsive. I
- 15 asked for and received copies of the papers that had
- 16 been produced by -- and that -- or copies of papers
- 17 that had been published by recipients of CTR special
- 18 grants. Now what I can't guarantee is that I have
- 19 read each and every one of their papers or that there
- 20 are not papers out there that I didn't receive.
- 21 Q. Did you read most of the papers?
- 22 A. Yes.
- 23 Q. And approximately how many papers were you
- 24 given? Was that about 100 or so?
- 25 A. Well I think more.

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- 1 Q. Now as I understand it from your report, you
- 2 don't find anything unusual about the fact that
- 3 industry might fund some research that might have
- 4 commercial value to the industry?
- 5 A. Done all the time.
- 6 Q. And did you find that any of the special project
- 7 papers that were published would fall into the
- 8 category of having some commercial value to the
- 9 sponsors of the research?
- 10 A. You have to explain to me commercial value. Do
- 11 you mean a device was invented or a type of cigarette
- 12 was invented that they could sell?
- 13 Q. Commercial value of any kind as you use that
- 14 term in your report?
- MR. ALLINDER: Object to the form of the
- 16 question.
- 17 A. Well, commercial value to defend the interests
- 18 of the industry, to dispel let's say questionable
- 19 information derived -- in the literature or what have
- 20 you, I -- I guess there was. I didn't look at them.
- 21 I didn't read those papers with that in mind.
- 22 Q. Well, was it your impression that these special
- 23 projects were undertaken specifically at the behest
- 24 of the tobacco industry?
- 25 A. Definitely.

- 1 Q. And that obviously then the tobacco industry had
- 2 some specific reason why it wanted these research
- 3 studies funded?
- 4 A. That is my understanding.
- 5 Q. And it was your understanding that the tobac --
- 6 tobacco industry perceived some commercial value to
- 7 the conduct of this research?
- 8 MR. ALLINDER: Object to the form of the
- 9 question.
- 10 A. Well, my problem is with the term "commercial".
- 11 I -- I would say that they perceived some value to
- 12 the industry, and I'd have to leave it at that.
- 13 Q. Okay. Some value to the industry and to each of
- 14 its members?
- 15 A. I can't tell you. I don't know.
- 16 Q. Is it your understanding that these special
- 17 projects when they were funded by the tobacco
- 18 industry would been paid for by the individual
- 19 tobacco companies in some proportion to their market
- 20 shares?
- 21 A. I don't know.
- 22 Q. Did you have any understanding of how the
- 23 tobacco industry was paying for these special
- 24 projects?
- 25 A. To my knowledge they are paying for them but not

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- 1 out of the budget of the SAB program.
- 2 Q. They were paying for these special projects by
- 3 essentially issuing checks to an account or to their
- 4 lawyers so that the projects could be funded?
- 5 A. Well, you know more about that than I do.
- 6 Q. Is that your understanding?
- 7 A. Well I don't know if they sent cash in marked
- 8 envelopes or whether they sent checks. I mean you're
- 9 asking me questions I haven't any knowledge of.
- 10 Q. Well it's an interesting subject, we'll look
- 11 into that possibility.
- 12 (Laughter.)
- 13 Q. Now the papers that were published as a result
- 14 of these special projects were obviously available to
- 15 all of the tobacco companies, right?
- 16 A. They were in the public domain.
- 17 Q. And one would expect that if -- if a company was
- 18 paying for a portion of the study they were at least
- 19 going to get a copy of the paper that came out of the
- 20 study?
- 21 MR. ALLINDER: Object to the form of the
- 22 question.
- 23 Q. Fair assumption?
- MR. ALLINDER: Object to the form of the
- 25 question?

- 1 A. Not a fair assumption, it's in the public
- 2 domain, they have xerox machines, they can copy it.
- 3 I don't really know whether the grantees were
- 4 requested to send reprints to the companies or
- 5 whether they were not.
- 6 Q. Did the --
- 7 A. But I do know that they were encouraged to
- 8 publish their findings.
- 9 Q. These were all done pursuant to contracts, were
- 10 they not?
- 11 MR. ALLINDER: Object to the form of the
- 12 question.
- 13 A. They were called special grants.
- 14 Q. In each instance wasn't there a contract between
- 15 the funding organization and the researcher?
- 16 MR. ALLINDER: Object to the form of the
- 17 question.
- 18 A. I don't really know the answer, whether it was
- 19 in the form of a -- a defined contract or whether a
- 20 special grant had some other device.
- 21 Q. Was it your understanding that the investigators
- 22 or researchers who were funded for these special
- 23 projects could publish their results regardless of
- 24 whether the tobacco companies or their agents wanted
- 25 the researchers to do that?

- 1 A. It is my understanding that they were encouraged
- 2 to publish their results and to acknowledge funding
- 3 by CTR special projects.
- 4 Q. Assuming that they were encouraged to
- 5 acknowledge funding by CTR special projects if they
- 6 did publish, do you have any specific information as
- 7 to whether they were in all regards free to publish
- 8 regardless of the objections of the tobacco companies
- 9 that were paying for this research?
- 10 MR. ALLINDER: Object to the form of the
- 11 question.
- 12 A. I believe they were free to publish.
- 13 Q. And is part of your opinion that you found no
- 14 impropriety with these special projects based upon
- 15 the assumption that in each event the researcher was
- 16 at liberty to publish or not publish as the
- 17 researcher saw fit?
- 18 MR. ALLINDER: Object to the form of the
- 19 question.
- 20 A. I have no way of knowing the data that an
- 21 investigator chose not to publish. We in our group
- 22 probably publish 20 percent of the data that we
- 23 generate.
- 24 Q. I understand that.
- 25 A. Maybe -- maybe less.

- 1 Q. Just free to publish or not publish.
- 2 A. Right. No, what I'm saying is what I am really
- 3 familiar with is what was published, and as far as I
- 4 know they were free to publish whatever they wanted.
- 5 Q. And in reviewing what was published, which is
- 6 all you've had access to regarding these special
- 7 projects, you found considerable commercial value
- 8 there for the tobacco industry?
- 9 MR. ALLINDER: Object to the form of the
- 10 question.
- 11 A. Well I -- I don't think I ever said that,
- 12 commercial value for the tobacco industry. I -- I
- 13 don't recall using such an expression. You may want
- 14 to refresh my memory, but I don't recall saying that.
- 15 Q. Isn't there an expression of that concept in
- 16 your report?
- 17 A. That special projects were of -- that the
- 18 results of special projects studies were of
- 19 commercial value to the companies? Please show me
- 20 where I say that.
- 21 Q. Do you recall indicating that companies often
- 22 fund -- industries or members of industries often
- 23 fund research because they expect to gain commercial
- 24 value from it?
- 25 A. Well it may or may not. I would not be

- 1 surprised to learn, for instance, that duPont funds
- 2 research on ground pollution from pesticides. I'm
- 3 giving you an example. They may or may not. I have
- 4 -- you know, that's not an area that I know anything
- 5 about, but it wouldn't surprise me because they have
- 6 to comply with all kinds of regulations. They may
- 7 fund all kinds of research which might assist them in
- 8 complying with government regulations. No, the very
- 9 -- the fact that something is funded doesn't mean
- 10 it's going to have commercial application.
- 11 Q. Often industries fund research with the
- 12 expectation that the results will be of commercial
- 13 value; true?
- 14 A. I would think so.
- 15 Q. Now in the CTR special project studies that were
- 16 published and which you've reviewed, did any of them
- 17 deal with the etiology of the diseases that have been
- 18 linked to cigarette smoking?
- 19 MR. ALLINDER: Object to the form of the
- 20 question.
- 21 A. Yes.
- 22 Q. So a number of those CTR special projects fell
- 23 into that same broad category that you indicate the
- 24 grant program focused on after 1970?
- 25 A. Some of them.

- 1 MR. ALLINDER: Excuse me. Object to the
- 2 form of the question.
- 3 A. Some of them did, yes.
- 4 Q. And you regarded research into the etiology of
- 5 the diseases that have been linked to cigarette
- 6 smoking as valuable scientific information; true?
- 7 A. That's true.
- 8 Q. And I take it it would be valuable scientific
- 9 information to the tobacco industry as well?
- 10 A. It would be valuable to everyone who's
- 11 interested in health.
- 12 Q. And instead of each of the tobacco companies
- 13 attempting to develop that type of information on its
- 14 own, in these instances they were pursuing that goal
- 15 collectively; correct?
- 16 A. That's my understanding.
- 17 Q. And each knew what the results of the studies
- 18 were, or each had the opportunity to know?
- 19 A. I would assume they did.
- 20 Q. And all of the tobacco companies --
- 21 A. Well, wait, everybody had the opportunity to
- 22 know. Remember the results were published in the
- 23 public domain.
- 24 Q. And all of the tobacco companies had technical
- 25 personnel, employees, that were assigned to the CTR

- 1 as some type of an advisory committee?
- 2 MR. PURDY: Objection.
- 3 Q. Correct?
- 4 MR. PURDY: Objection to the form, lacking
- 5 foundation.
- 6 A. I think they had.
- 7 Q. And certainly you would expect that those
- 8 technically-trained employees of the cigarette
- 9 companies that were assigned to duty with the CTR,
- 10 they would be aware of these publications that dealt
- 11 with the etiology of diseases that were linked to
- 12 tobacco smoking?
- 13 MR. ALLINDER: Object to the form of the
- 14 question.
- 15 A. They had the opportunity. Whether they availed
- 16 themselves of the opportunity, I'm not in a position
- 17 to say.
- 18 Q. Now have you ever attempted to determine if
- 19 there were any special projects that the CTR
- 20 prohibited the investigator from publishing?
- 21 A. That has not come to my attention.
- 22 Q. Were there any special projects that you know of
- 23 that were handled through the CTR but not handled
- 24 through the scientific director?
- 25 A. It's my understanding that with regard to

- 1 special projects the CTR functioned in an
- 2 administrative way because they had the apparatus in
- 3 place to disperse funds, and so that the disbursement
- 4 personnel or people who were responsible for
- 5 disbursing funds to investigators of the CTR, their
- 6 organization, handled those funds. I believe that
- 7 the special projects before they were awarded were
- 8 reviewed by the scientific director of the CTR who
- 9 commented upon the scientific feasibility and
- 10 relevance of a study.
- 11 Q. Commented to whom?
- 12 A. Well to whoever initiated the special project.
- 13 Q. To the tobacco company that initiated the
- 14 special project?
- 15 A. Well I don't know if it was one or more, but to
- 16 the $\operatorname{\mathsf{--}}$ to the people who are responsible for
- 17 initiating the project and reported whether it was
- 18 scientifically feasible, relevant, proper, and
- 19 whatever it is. And then if the scientific director
- 20 thought that the project was an appropriate one, it
- 21 would then be funded through funds not in the SAB
- 22 program but administered through the CTR.
- 23 Q. Is it your understanding that any of the
- 24 proposed special projects that the scientific
- 25 director did not think were scientifically relevant

- 1 were ever funded nevertheless?
- 2 A. I don't know.
- 3 Q. Have you seen any information on the subject of
- 4 lawyers representing the cigarette industry making
- 5 funding decisions with respect to certain types of
- 6 special projects?
- 7 A. Special projects were initiated by lawyers or
- 8 executives of the tobacco companies. Funding would
- 9 come from those sources, so that -- that's what I
- 10 know about it.
- 11 Q. And if the -- are you aware of a category of
- 12 special projects that were handled by lawyers after
- 13 the scientific director of the CTR indicated that he
- 14 was not comfortable with the scientific relevance of
- 15 the project?
- MR. ALLINDER: Object to the form of the
- 17 question.
- 18 A. I -- I don't recall that, no.
- 19 Q. You've never been shown any of those special
- 20 projects or any information about those special
- 21 projects?
- MR. ALLINDER: Object to the form of the
- 23 question.
- 24 A. Well with the proviso that I don't have any
- 25 notes or documents in front of me, I don't recall

- 1 seeing such projects.
- 2 Q. And your memory as you sit here today, Dr.
- 3 Rubin, is that the only CTR special projects that you
- 4 have any specific information on are those which were
- 5 published?
- 6 A. No.
- 7 MR. ALLINDER: Object to the form of the
- 8 question.
- 9 A. That's not true. I -- the compendium of special
- 10 projects presumably included a list of all of those
- 11 that were funded, but not every project resulted in a
- 12 publication, which is not different from NIH, let's
- 13 say. Not every grant they fund results in a
- 14 publication.
- 15 Q. What was the ratio of -- of those that had been
- 16 funded in relation to those that were ultimately
- 17 published? The approximate ratio?
- 18 A. The approximate ratio of papers to grants?
- 19 Q. Yes. With respect to these special projects,
- 20 this 100 to 120 special projects that were referenced
- 21 in this compendium that you reviewed.
- 22 A. Well I don't have that number available. I
- 23 would say it's -- I would guess that it's more than
- 24 1, the ratio.
- 25 Q. Guess that more than 1 of the 120 or so got

- 1 published?
- 2 A. I said the ratio.
- 3 Q. One-to-one?
- 4 A. That is --
- 5 Q. I'm sorry, I misunderstood.
- 6 A. That the ratio of papers to grants was more than
- 7 1.
- 8 Q. I guess I'm still not following the way that
- 9 you're using those statistics.
- 10 A. I'm using -- this is English.
- 11 Q. But --
- 12 A. This is -- ratio -- ratio means number of grants
- 13 -- of papers divided by the number of grants.
- 14 Q. Okay.
- MR. ALLINDER: I think you're
- 16 miscommunicating a little bit.
- 17 Q. And I'm familiar with that fraction. What would
- 18 be the enumerator of that fraction, the number of CTR
- 19 special projects that were published?
- 20 A. The project isn't published. A paper is
- 21 published. So the number of papers published by
- 22 recipients of CTR special projects divided by the
- 23 number of investigators funded by CTR special
- 24 projects.
- 25 Q. I see what you're doing now, where you're

- 1 getting over 1, but that's not the question I was
- 2 trying to ask. If there were approximately 120
- 3 projects that were funded, if there were
- 4 approximately 120 studies that were funded under the
- 5 special projects program, of that 120 studies
- 6 approximately how many got published?
- 7 A. I don't know the answer.
- 8 MR. ALLINDER: I'm going to object to the
- 9 form.
- 10 A. I don't know the answer to that. I haven't
- 11 analyzed the data in that manner. Remember that
- 12 there were a number of special projects that were not
- 13 research projects, they were fellowships for travel.
- 14 They had funds to compile certain types of data, give
- 15 reports. There were funds for symposia.
- 16 Q. And none of those had anything to do with the
- 17 relationship between tobacco smoking and disease, did
- 18 they?
- 19 MR. ALLINDER: Object to the form of the
- 20 question.
- 21 A. Well I don't think so. I mean I -- I --
- 22 Q. The travel.
- 23 A. The travel, they were -- the travel was for
- 24 investigators, let's say who are junior investigators
- 25 often who were working with senior investigators

- 1 involved. I believe that, for instance, as I recall,
- 2 there were some funds for an investigator, a young
- 3 investigator who worked with Alvan Feinstein at Yale
- 4 who was involved in statistical evaluations of the
- 5 relationship of smoking to cancer. There were funds
- 6 for symposia on twin studies that -- in Sweden.
- 7 That's clearly of importance to the development of
- 8 cancer. And we even know now even more how important
- 9 that is. So not all of the projects of these 120
- 10 would be expected to result in a research
- 11 publication.
- 12 Q. I understand that. And you've reviewed a fair
- 13 number, if not all, of the studies that were handled
- 14 under CTR special projects that were published;
- 15 correct?
- 16 A. That's correct.
- 17 Q. How many did you review about? 5? 10? 50?
- 18 A. Oh, no. You know, I don't -- I didn't keep
- 19 record of it that way. I -- I would guess they're at
- 20 perhaps 100.
- 21 Q. So you believe that there -- and were these all
- 22 research studies, the hundred or so that you
- 23 reviewed?
- 24 A. Well a lot of them were research studies, but
- 25 some of them --

- 1 Q. I don't care about the ones that might deal with
- 2 a study on travel.
- 3 A. No, no, I --
- 4 MR. ALLINDER: Objection.
- 5 A. Allow me to finish what I say and you will been
- 6 educated as to my opinions.
- 7 Q. Well let me just rephrase and -- and start all
- 8 over because I think we're getting a little bit off
- 9 track.
- 10 MR. ALLINDER: I do too.
- 11 Q. Of the studies that you reviewed that you were
- 12 given to understand were CTR special projects, about
- 13 how many of those were research papers dealing with
- 14 the subject of health?
- 15 A. Research papers that I reviewed would fall into
- 16 roughly three categories. One was research papers in
- 17 peer-review journals. Another would be editorials,
- 18 reviews relating to the subjects of the special
- 19 project. And the third would be chapter in books or
- 20 books that were resulting from symposium, things like
- 21 that.
- 22 Q. Approximately how many were peer-reviewed
- 23 publications?
- 24 A. A large number. I don't recall how many.
- 25 Q. More than 50?

- 1 A. But -- I think so, yes.
- 2 Q. And since they were published it goes without
- 3 saying that the funding organization was apparently
- 4 comfortable with the publishers -- with the
- 5 researchers getting their results published?
- 6 MR. ALLINDER: Object to the form of the
- 7 question.
- 8 MR. PURDY: Objection.
- 9 Q. Well let me withdraw it. Let me withdraw the
- 10 question.
- 11 With respect to those peer-reviewed publications
- 12 that you reviewed did you see any evidence that the
- 13 sponsors of the study didn't want them to be
- 14 published?
- 15 A. There wouldn't -- wouldn't been any indication
- 16 of that in the papers that are published. It does
- 17 not carry a note with it ordinarily that CT -- that
- 18 the tobacco companies are particularly happy to see
- 19 this paper published or that they're particularly
- 20 unhappy.
- 21 Q. That's why I asked it as a broader question.
- 22 Among all the information that you've looked at in
- 23 connection with your consulting work on this case,
- 24 did you see anything that indicated to you that the
- 25 tobacco companies were against the publication of any

- 1 of those peer-reviewed studies that were funded under
- 2 special projects?
- 3 A. Well, I don't know that I can answer it that
- 4 narrowly. I know that there were some people in the
- 5 tobacco industry who were not happy with the
- 6 publication of data by grantees and there were other
- 7 people who were entirely pleased. I think there was
- 8 a difference of opinion.
- 9 Q. I'm talking about special projects now.
- 10 A. That's why I say I'm not sure that I can narrow
- 11 the -- what I know down to special projects. I can
- 12 say in general I think there was a difference of
- 13 opinion regarding the usefulness of publications
- 14 resulting from CTR and/or special projects. I -- I
- 15 never -- I didn't refine my analysis to separate
- 16 that.
- 17 Q. With respect to the studies that were published
- 18 in peer-review publications that were funded by
- 19 special projects, did the researcher's interpretation
- 20 of the data lead away from the tobacco
- 21 smoking-disease causation hypothesis?
- 22 A. Sometimes yes and sometimes no.
- 23 Q. How many times no? By "no" you mean that the --
- 24 that the author's interpretation of the data
- 25 indicated that there was a cause and effect

- 1 relationship between tobacco smoking and disease?
- 2 MR. ALLINDER: Object to the form of the
- 3 question.
- 4 A. Well there were such papers. I didn't count the
- 5 number that were adverse to tobacco and those that
- 6 were more supportive of the tobacco position.
- 7 Q. Can you think of any as you sit here today that
- 8 were adverse to the interests of the tobacco
- 9 companies that sponsored that research conducted with
- 10 special product -- project funding?
- 11 A. Well sure.
- 12 Q. Please tell me. Whichever ones you can think of
- 13 that fall into that category?
- 14 A. Well I think Bill Gutstein's papers dealing with
- 15 the central nervous system influence on
- 16 atherosclerosis were highly suggestive that the
- 17 central nervous system or the autonomic nervous
- 18 system could influence the development of
- 19 atherosclerosis with the inevitable implication that
- 20 drugs, such as nicotine, that had profound effects on
- 21 the central nervous system, the autonomic nervous
- 22 system, therefore could influence the development of
- 23 atherosclerosis through such mechanisms.
- 24 Q. Was nicotine specifically mentioned --
- 25 A. I don't --

- 1 Q. -- in his publication?
- 2 A. I don't remember.
- 3 MR. ALLINDER: Excuse me, you need to let
- 4 him finish before you respond, and I hope, Dick, you
- 5 will let Dr. Rubin finish before you start your next
- 6 question.
- 7 THE WITNESS: He's a hard task master.
- 8 MR. ALLINDER: I'd just like that on the
- 9 record.
- 10 Q. Any other papers that come to mind that fall
- 11 into the category of results that were adverse to the
- 12 interests of the tobacco company?
- 13 A. Well to me some of Sterling's work on sick
- 14 building syndrome did demonstrate that tobacco smoke
- 15 in one area could permeate other areas. His -- I
- 16 mean it's a complicated issue, and the concentrations
- 17 in one area were not necessarily the same, not
- 18 uniform, but there is a demonstration there that
- 19 tobacco smoke can been detected at some distance, and
- 20 anyone who wanted to use that information certainly
- 21 could have.
- 22 Q. Did Sterling make a finding in this paper that
- 23 tobacco smoke environmentally present would cause
- 24 disease?
- 25 A. I don't think Sterling is in the area of disease

- 1 as much as he is in the statistical and the
- 2 engineering part of -- and the chemical detection
- 3 part of those studies.
- 4 Q. So he simply documented the presence of -- of
- 5 smoke in buildings?
- 6 A. Well, yes, he did, and I'm not an expert in sick
- 7 buildings and how particulates in smoke are
- 8 distributed so I can't say that I have analyzed all
- 9 of those papers in the same way that I would areas
- 10 that I understand better, but certainly he documented
- 11 that smoke will travel from its source to different
- 12 areas. I think it's an example of a fair-minded
- 13 approach, and not -- some of the -- some of his
- 14 findings were perhaps helpful to the industry, some
- 15 of his findings were perhaps not helpful. I won't
- 16 judge that particular issue.
- 17 Q. Any other research paper that comes to mind that
- 18 was funded by special projects that you believe
- 19 reached results that were adverse to the interests of
- 20 the tobacco companies?
- 21 A. Well I have to review the -- my notes on that.
- 22 Q. None others that come to your mind at the
- 23 present time?
- 24 A. Not at this time.
- 25 Q. Now if --

- 1 MR. PURDY: Could we take just five
- 2 minutes?
- 3 MR. GILL: Yeah, that's fine.
- 4 MR. ALLINDER: And while we're doing that
- 5 can we get a count on our clock today.
- 6 COURT REPORTER: Five hours and one
- 7 minute.
- 8 (Recess from 3:06 to 3:13 p.m.)
- 9 BY MR. GILL:
- 10 Q. Dr. Rubin, you mentioned that your understanding
- 11 was that CTR asked the researchers who were funded
- 12 under special projects to if they acknowledged their
- 13 funding indicate that it came from CTR special
- 14 projects; correct?
- 15 A. That's correct.
- 16 Q. Now I think you also told me that the type of
- 17 advisory review board that the CTR had in the SAB was
- 18 not at all unusual with regard to funding
- 19 organizations?
- 20 A. That's correct.
- 21 Q. If somebody were reading a published study that
- 22 contained a -- an acknowledgment of funding through
- 23 CTR special projects, would you expect that they
- 24 would be able to deduce from that label that the
- 25 project had been funded without any consideration by

- 1 the CTR's review board?
- 2 MR. ALLINDER: Object to the form of the
- 3 question.
- 4 A. Well, first, very few scientists read the
- 5 acknowledgments, that's not the kind of think that's
- 6 of any interest to most scientists, and
- 7 acknowledgments are put down mostly for the funding
- 8 agencies, so, for instance, on my own grant I will
- 9 list the NIH numbers of the grants that supported
- 10 that particular paper, that's what most people do,
- 11 nobody reads them or pays attention to them because
- 12 they're of no interest. But what's important is the
- 13 paper, it's not the acknowledgment. Now in answer,
- 14 direct answer to your question, even among those who
- 15 might look at the acknowledgments there would be a
- 16 very small minority who would have any idea of the
- 17 mechanism by which grants are funded who would know
- 18 that there is a scientific advisory Board or that
- 19 priorities are established or how funding decisions
- 20 are made. So if -- you would then get down to a
- 21 small population of people who would read that paper
- 22 who had particular knowledge of the inside workings
- 23 of the CTR, in which case they might or might not
- 24 know the difference between special projects and SAB
- 25 spon -- or SAB program. You probably would be

- 1 talking about a half a dozen people.
- 2 Q. And that's your considered opinion on that
- 3 subject?
- 4 A. I don't know how considered it is. It's my
- 5 opinion.
- 6 Q. I think I heard two opinions expressed there.
- 7 One was that very few readers of scientific journals
- 8 pay any attention to any acknowledgment of funding.
- 9 A. That's correct.
- 10 Q. And is your opinion on that subject based upon
- 11 some type of a study that you've done?
- 12 A. Yes.
- 13 Q. And how many people have you consulted for
- 14 purposes of your study on that subject?
- 15 A. Half a dozen.
- 16 Q. Is that the extent of your study?
- 17 A. That's it.
- 18 Q. And is your opinion on that subject based upon
- 19 anybody else's study that you've reviewed?
- 20 A. Look, I'm being facetious. Nobody has --
- MR. ALLINDER: Please. Please don't be.
- THE WITNESS: No. No, no, no.
- MR. ALLINDER: Okay. Please don't be
- 24 facetious.
- 25 THE WITNESS: Well let me explain to you in

- 1 what way I'm facetious.
- 2 MR. ALLINDER: Okay.
- 3 THE WITNESS: I have consulted --
- 4 MR. ALLINDER: Okay.
- 5 THE WITNESS: -- a few people in our
- 6 department on this very issue. I've just said to
- 7 them because of the encouragement to acknowledge
- 8 funding, I did ask a number of people in our
- 9 department who are well-known investigators, Do you
- 10 read the acknowledgments? And they all laughed at
- 11 me. Of course not. Because they know very well that
- 12 neither I nor they nor anyone else is really
- 13 interested unless you have some particular concern if
- 14 you're an administrator of an NIH program or what
- 15 have you. So in that respect I am not being
- 16 facetious. What I'm being facetious is in calling it
- 17 a study. I mean to talk to half a dozen people is
- 18 not a study. And I apologize for any levity --
- MR. ALLINDER: No, that's quite all right.
- 20 THE WITNESS: -- that may have crept into
- 21 it.
- 22 MR. ALLINDER: It's difficult sometimes to
- 23 see the levity in the written record.
- 24 THE WITNESS: Okay.
- MR. ALLINDER: And so it's better to try to

- 1 respond directly to the question and not be
- 2 facetious.
- 3 BY MR. GILL:
- 4 Q. So you have not conducted an informal study?
- 5 A. I have done an informal survey of a half a dozen
- 6 people, but I've been around this business for a long
- 7 time.
- 8 Q. And have you seen anybody else's study on that
- 9 subject?
- 10 A. No.
- 11 Q. Okay. Now the other opinion that I -- I believe
- 12 you've expressed, that had to do with whether or not
- 13 the reader of a study would attach any significance
- 14 to an acknowledgment of funding if they did read it;
- 15 is that correct?
- 16 A. Well what's the question?
- 17 Q. Was that your other opinion that you didn't
- 18 believe that anybody who happened to notice the
- 19 acknowledgment would pay any particular attention to
- 20 it?
- 21 A. Well, anybody -- you know, anybody, nobody,
- 22 never, these are very difficult terms to deal with.
- 23 In general nobody attributes any importance to that
- 24 whatsoever.
- 25 Q. All right. And is that opinion based upon any

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- 1 study that you've conducted?
- 2 A. No, it's not.
- 3 Q. And is it based upon any study that you're aware
- 4 of?
- 5 A. I don't believe there's been a gallup poll of
- 6 scientists to quantitate the issue.
- 7 Q. Or any other study on that subject; true?
- 8 A. Not to my knowledge.
- 9 Q. But you think that -- it's your opinion that
- 10 most readers of scientific journals are unaware of
- 11 review boards for funding agencies prioritizing
- 12 funding commitments?
- 13 MR. PURDY: I'm sorry. Can I just have it
- 14 read back.
- 15 (The record was read by the reporter.)
- 16 A. I think that most funded investigators assume
- 17 that there is some kind of a review board that
- 18 evalutes the grants, but the mechanisms by which they
- 19 do that may differ with different organizations.
- 20 Q. So a funded investigator or someone with
- 21 experience as a funded investigator who happened to
- 22 read a study that acknowledged funding as a --
- 23 through CTR special projects might well assume that
- 24 that was a reference to some review board process
- 25 that had occurred relative to that particular

- 1 research project?
- 2 MR. ALLINDER: Object to the form of the
- 3 question.
- 4 A. He might, yes.
- 5 Q. And in this instance that would be an erroneous
- 6 assumption; would it not, because the SAB was not --
- 7 would not have been involved at all in the decision
- 8 to fund a CTR special project?
- 9 A. That would not be a correct assumption.
- 10 Q. And in fact the -- all of the people who made
- 11 the decisions to fund a CTR special project would be
- 12 employees or agents of the tobacco industry?
- 13 MR. ALLINDER: Object to the form of the
- 14 question.
- 15 A. That is my understanding.
- 16 Q. And for all the decisions with respect to
- 17 funding a research project to be made by employees or
- 18 agents of the tobacco industry, that would be
- 19 inconsistent with a promise of full and independent
- 20 investigation of the health risks of smoking?
- MR. PURDY: Object to the form.
- 22 Q. True?
- MR. PURDY: Object to the form.
- 24 A. Untrue.
- 25 Q. Well you wouldn't expect that the employees and

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- 1 agents of the tobacco companies would be completely
- 2 independent with respect to a full and complete
- 3 investigation of the health risks of smoking, --
- 4 MR. PURDY: Object to the form.
- 5 Q. -- would you?
- 6 A. You'll have to forgive me, but I don't really
- 7 understand the question. So if you would break it
- 8 down into parts or simplify it.
- 9 Q. Assuming that an organization -- let's strike
- 10 that.
- 11 Assume that the tobacco companies published to
- 12 the general public a -- an undertaking to sponsor
- 13 completely independent research into the health risks
- 14 of smoking. All right.
- 15 A. I --
- 16 Q. Got that so far?
- 17 A. Got it.
- 18 Q. Research that was funded solely and exclusively
- 19 by employees and agents of the tobacco companies
- 20 would not fall within the parameters of such an
- 21 undertaking, would it?
- 22 A. Untrue.
- MR. ALLINDER: Object to the form.
- 24 A. Sorry. Untrue.
- 25 Q. And on what basis do you believe that's untrue?

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- 1 A. The motives, the goals, the reasons, the
- 2 objectives of the sponsor are not related to the
- 3 results of a research study. The study speaks for
- 4 itself. It has to be submitted to a journal. It has
- 5 to be peer-reviewed by experts in the field. The
- 6 reviews of the peer-reviewers are then examined by
- 7 the editor of the journal who will agree or disagree
- 8 with them and make his own decision, after which it
- 9 will either be rejected, accepted, or returned to the
- 10 investigator for revisions. In any event, the
- 11 sponsor plays no role in this process whatsoever.
- 12 Q. Do you believe there are any investigators
- 13 available that might do the tobacco companies'
- 14 bidding in the type of situation that I outlined?
- MR. ALLINDER: Object to the form.
- 16 A. There -- you know, all things in this, the best
- 17 of all possible worlds, are possible. I have not
- 18 encountered any evidence that investigators funded by
- 19 special projects did not conduct honest, sincere, and
- 20 efficient studies, that they engaged in any
- 21 scientific misconduct, or that they did not conduct
- 22 their studies in the way that grant-funded or
- 23 NIH-funded or ACS-funded studies are, they're
- 24 published in the same types of journals, they were
- 25 subjected to the same kinds of reviews, and as far as

- 1 I know carried out their work in precisely the same
- 2 way as funding from any source. In other words, the
- 3 source of funding is irrelevant. It is the conduct
- 4 of research and the reporting of the research that is
- 5 important. I have yet to encounter any documentation
- 6 that either an investigator or the paper that he
- 7 published, the reviewers of the paper, or the editor
- 8 of the paper -- of the journal engaged in anything
- 9 but ethical and appropriate conduct. I am willing to
- 10 revise my opinion about any particular investigator
- 11 or paper or journal if I am presented with the
- 12 evidence.
- 13 Q. Have you asked to see the results of studies
- 14 that were undertaken at the request of lawyers for
- 15 the tobacco companies where the funding was supplied
- 16 through CTR?
- 17 MR. ALLINDER: Object to the form of the
- 18 question.
- 19 A. You mean administered by CTR?
- 20 Q. Administered by CTR.
- 21 A. Well I assume that many of the papers that I
- 22 have reviewed were the results of studies that were
- 23 funded by lawyer-initiated special projects.
- 24 Q. And are you aware that there were some
- 25 lawyer-initiated special projects the results of

- 1 which were never published?
- 2 A. As I told you before, not all grants result in
- 3 papers and not all data are included in papers. I
- 4 have no knowledge or I have no access to material
- 5 that was generated by studies that were not published
- 6 or that were not included in publications.
- 7 Q. But it's your understanding that some of the
- 8 publications that you have been shown fell into this
- 9 special project category were lawyer-initiated
- 10 studies?
- 11 A. Let's make a -- a very clear distinction here.
- 12 The studies or the topic for the study was initiated
- 13 by lawyers; that is, there was an area that the
- 14 tobacco companies and their lawyers, executives, else
- 15 -- whoever else is in on these decisions, and area
- 16 that they felt would be of interest to them and they
- 17 therefore requested competent investigators who were
- 18 known in the field to investigate this issue. The
- 19 investigators were then funded and were encouraged to
- 20 publish whatever data resulted from these studies, --
- 21 Q. Encouraged --
- 22 A. -- and they did.
- 23 Q. Encouraged by the lawyers.
- 24 A. They were encouraged by the terms of the grant
- 25 that they were given. And indeed they did. We find

- 1 most of these papers give credit to CTR special
- 2 projects.
- 3 Q. Are you aware that the Defendants in this case
- 4 have asserted claims of privilege on his to the
- 5 results of some of the scientific studies that were
- 6 initiated by their lawyers?
- 7 MR. ALLINDER: Object to the form of the
- 8 question.
- 9 A. I'm not acquainted with the precise details of
- 10 privilege. I know that I signed a -- a form of
- 11 confidentiality with relation to examining documents
- 12 in this case. And of course I have maintained that
- 13 confidentiality. But I'm not really cognizant of all
- 14 of the materials that are included in these
- 15 proceedings.
- 16 Q. Recognizing, Dr. Rubin, that the role of an
- 17 attorney is that of an advocate, do you think it's
- 18 appropriate for an advocate to be able to release the
- 19 results of scientific studies that advance the
- 20 interests of his client or her client and to claim
- 21 privilege with respect to those that don't?
- 22 MR. ALLINDER: Objection to the form of the
- 23 question.
- 24 A. You're asking me about --
- MR. ALLINDER: Assumes -- excuse me.

- 1 Assumes facts not in evidence. No foundation.
- 2 A. You're asking me about legal ethics. Some
- 3 people feel that that's an oxymoron, I've heard that
- 4 said, but of course I don't agree with that, but I --
- 5 I'm not an expert on legal ethics.
- 6 Q. Well do you have any opinion as -- as a lay
- 7 person and as a doctor who certainly has a background
- 8 in medical ethics with respect to the appropriateness
- 9 of a tobacco company gaining the advantage of certain
- 10 research conducted through their lawyers while at the
- 11 same time shielding from publication under a claim of
- 12 privilege the results of other research that might be
- 13 inconsistent with their interests?
- MR. ALLINDER: Same objections.
- 15 A. Well you spoke of lawyers conducting research.
- 16 I don't -- they may conduct legal research, but they
- 17 didn't conduct any research under special projects.
- 18 Q. All right. Authorized research.
- 19 A. Funded research.
- 20 Q. Authorized, funded research. Do you think it's
- 21 -- it's --
- 22 A. Well I -- I don't know the answer to that. You
- 23 know, you're dealing with items that are so specific
- 24 to circumstances that -- and you're asking me to make
- 25 a general statement about matters that are foreign to

- 1 me.
- 2 Q. This is another matter beyond your experience --
- 3 A. I just don't think -- I don't think it would be
- 4 appropriate for me. If you'd give me specific
- 5 examples and show me all the circumstances that --
- 6 the data, the -- what happened, I would be certainly
- 7 willing to give you my opinion as a layman in legal
- 8 ethics, but as a -- I don't think you should be
- 9 asking me global questions that are so specific to
- 10 the individual situation.
- 11 Q. So you don't have any opinion on this subject as
- 12 an expert?
- 13 MR. ALLINDER: Object to the form of the
- 14 question.
- 15 A. I'm not an expert on legal ethics.
- 16 Q. And you haven't considered this issue of whether
- 17 it's appropriate or not for lawyers for the tobacco
- 18 companies to authorize funded research and then
- 19 selectively approve publication of the results?
- 20 MR. ALLINDER: Objection.
- 21 A. Wait a second. I -- that's something brand
- 22 new. I -- as I understand it, the recipients of
- 23 funds from CTR special projects were free to publish
- 24 their results and did so.
- 25 Q. And might your opinions with regard to this area

- 1 of your investigation change if that assumption is
- 2 erroneous?
- 3 MR. ALLINDER: Object to the form of the
- 4 question.
- 5 A. If I -- any opinions that I have that are based
- 6 on erroneous assumptions are subject to change.
- 7 Q. Now do you understand, Dr. Rubin, that the
- 8 Plaintiffs in this case, the State of Minnesota and
- 9 Blue Cross Blue Shield of Minnesota, are alleging
- 10 that the tobacco industry has misrepresent -- has
- 11 misrepresented the health risks of smoking?
- 12 A. I think something to that effect.
- 13 Q. And do you understand that the State of
- 14 Minnesota and Blue Cross Blue Shield allege that CTR
- 15 has conspired with the tobacco companies to
- 16 misrepresent the health risks of smoking?
- 17 A. I'm aware of that.
- 18 Q. And are you aware that the allegations of
- 19 misrepresentation relating to this conspiracy between
- 20 the tobacco industry and CTR deal with, first of all,
- 21 attempting to reassure the smoking public that the
- 22 cigarettes they smoke may not cause cancer and other
- 23 diseases when the cigarette companies and the CTR
- 24 knew otherwise or believed otherwise?
- MR. ALLINDER: And the question is are you

- 1 familiar that that's part of the complaint, right?
- 2 MR. GILL: Yes.
- 3 A. Well I've seen that CTR is listed as a
- 4 defendant, and I have also read the complaint. In
- 5 that complaint are the type of allegations that you
- 6 have just included. I would have to see the
- 7 complaint again to verify the exact wording, but in
- 8 general that's my under -- my understanding is that
- 9 CTR is a defendant in such proceedings.
- 10 Q. Okay. And that another part of the allegation
- 11 of misrepresentation is that CTR has conspired with
- 12 the tobacco companies to act as a public relations
- 13 front in furthering this reassurance to smokers that
- 14 none of these Defendants believed?
- MR. PURDY: I guess let me just object to
- 16 the form. I think the complaint speaks for itself.
- 17 You may answer.
- 18 A. As I have said before, I don't remember the
- 19 exact wording, but your description I believe is
- 20 substantially true.
- 21 Q. Okay. And do you understand that the State of
- 22 Minnesota and Blue Cross Blue Shield are alleging
- 23 that the tobacco companies and CTR promised that they
- 24 would undertake independent research of the health
- 25 risks of smoking and publish the results of that

- 1 research without any editing or censoring?
- 2 MR. PURDY: Same -- same objection.
- 3 Q. Do you understand that that's one of the
- 4 allegations in the case?
- 5 A. Something to that effect.
- 6 Q. And do you understand that another allegation
- 7 with regard to this conspiratorial misrepresentation
- 8 is that the tobacco companies and CTR have conspired
- 9 to suppress information that established the link
- 10 between smoking and disease?
- 11 MR. PURDY: Counsel, can I just have a
- 12 continuing objection? Then I won't --
- MR. GILL: Sure.
- MR. PURDY: I'm just going to have a
- 15 continuing objection that each time that he asks a
- 16 question about his understanding of the allegations
- 17 that I'm objecting to the form because the complaint
- 18 speaks for itself.
- 19 MR. GILL: That's fine.
- 20 BY MR. GILL:
- 21 A. Again with -- without vouching for the exact
- 22 wording, I am familiar with that type of allegation.
- 23 Q. All right. Now as I understand it, in
- 24 connection with those allegations, throughout your
- 25 investigation you have found the conduct of CTR in

- 1 all respects to have been exemplary?
- 2 MR. ALLINDER: Object to the form of the
- 3 question.
- 4 Q. Is that true?
- 5 A. You have a way of using absolute terms. I
- 6 believe that the conduct of the CTR has been
- 7 exemplary and has contributed substantially to our
- 8 understanding of tobacco and health and to underlying
- 9 mechanisms of disease. To sit here and state that I
- 10 would support each and every action of any
- 11 organization, including NIH, for which I hold a great
- 12 deal of regard, over a period of more than 40 years,
- 13 would not be appropriate.
- 14 Q. With respect to the specific allegations that we
- 15 just visited upon, do you believe that the conduct of
- 16 CTR through its employees, its staff, and its agents
- 17 has been exemplary in all respects, or have there
- 18 been exceptions?
- 19 MR. ALLINDER: Object to the form.
- 20 A. Again you throw in words like "in all respects,"
- 21 which is an absolute term. I believe that CTR has
- 22 done an outstanding job, has encouraged research, has
- 23 encouraged investigators, has helped young
- 24 investigators at the beginning of their career, has
- 25 assisted mature investigators in investigating

- 1 important issues, and has been a very positive force
- 2 in the support of biomedical research. I would just
- 3 repeat: When confronted with the record of any
- 4 organization whatsoever, be it the American Cancer
- 5 Society, American Heart Association, CTR, any other
- 6 organization, when confronted with a record of
- 7 innumerable decisions over a period of more than 40
- 8 years, I think it might be possible to pull out a few
- 9 instances of -- out of thousands of decisions that
- 10 may have been in retrospect better handled. I think
- 11 that that's entirely possible. So when you say
- 12 "all," "in all respects," I would agree with that in
- 13 general, with the understanding that we're all human
- 14 beings, organizations are made of human beings, and
- 15 there are occasions when we don't do things in the
- 16 best way possible.
- 17 Q. Do you ever recall testifying under oath that
- 18 you were of the opinion that the CTR's actions had
- 19 been exemplary in all respects?
- 20 A. No.
- 21 Q. If you had ever testified to that proposition
- 22 are you of a somewhat different mind now as just
- 23 explained in the long answer that you previously
- 24 gave?
- MR. ALLINDER: Object to the form.

- 1 A. I haven't changed my opinions in this case.
- 2 Q. You've had a chance to look at the -- the Frank
- 3 Statement before, have you not?
- 4 A. I have.
- 5 (Plaintiffs' Exhibit 3500 marked for
- 6 identification.)
- 7 Q. All right. Showing you Exhibit 3500, Dr. Rubin,
- 8 do you recognize this as a copy of the Frank
- 9 Statement?
- 10 A. I do.
- 11 Q. You've reviewed it many times, I take it?
- 12 A. I've reviewed it.
- 13 Q. Do you consider this ad or statement that
- 14 appeared in numerous papers throughout the country in
- 15 early 1994 to be a --
- MR. ALLINDER: Excuse me, Dick. You mean
- 17 --
- 18 Q. -- act of public relations?
- MR. ALLINDER: Do you mean 54?
- 20 Q. 54, I'm sorry. Let me ask the question over
- 21 again so we get a clear record.
- 22 You know that this Frank Statement appeared in
- 23 hundreds of newspapers across the country in early
- 24 1954; correct?
- 25 A. I believe it did.

- 1 Q. And among other things it announced the creation
- 2 of the TIRC?
- 3 A. That is correct.
- 4 Q. Does this Frank Statement have public relations
- 5 aspects to it as far as you can tell?
- 6 MR. PURDY: Object.
- 7 MR. ALLINDER: Object to the form.
- 8 A. Well, as I told you, I do not purport to be an
- 9 expert in public relations, but insofar as it's a
- 10 statement to the public and involves their perception
- 11 of the tobacco industry, it would have public
- 12 relations impact.
- 13 Q. And as you read it, and have read it, does it
- 14 attempt to portray the tobacco industry in a
- 15 favorable light?
- 16 A. Yes.
- 17 Q. With respect to the concerns that had been
- 18 expressed through certain studies during the previous
- 19 year by Dr. Doll and Dr. Wynder and others perhaps?
- 20 A. That's reasonable.
- 21 Q. Now the -- the Frank Statement makes certain
- 22 commitments to the public; does it not?
- MR. ALLINDER: Object to the form.
- 24 A. Makes three.
- 25 Q. And what are the three?

- 1 A. You want me to read to you.
- 2 Q. Yes, please read those that you consider to be
- 3 the tobacco industry commitments.
- 4 MR. ALLINDER: Object to the form.
- 5 A. We are pledging aid and assistance to the
- 6 research effort into all phases of tobacco use and
- 7 health. Number 2: We are establishing a joint
- 8 industry group known as Tobacco Industry Research
- 9 Committee. Number 3: In charge of the research
- 10 activities of the committee will be a scientist of
- 11 unimpeachable integrity and national repute. In
- 12 addition, there will be an advisory board of
- 13 scientists disinterested in the cigarette industry.
- 14 A group of distinguished men from medicine, science
- 15 and education will be invited to serve on this
- 16 board. These scientists will advise the committee on
- 17 its research activities.
- 18 Q. What significance do you attribute to the
- 19 statement that the scientist in charge of the
- 20 research activities will be of unimpeachable
- 21 integrity?
- 22 A. They say that these scientists of the board will
- 23 be of unimpeachable integrity and national repute.
- 24 Q. What significance do the attach to the
- 25 unimpeachable integrity commitment?

- 1 A. People of great honesty.
- 2 Q. Someone unbiased?
- 3 A. You know, we all have biases about everything.
- 4 It -- it would be sort of the -- the essence of
- 5 honesty is to be able to rise above one's bias and --
- 6 Q. Someone who will let the chips fall where they
- 7 may?
- 8 A. That's a good way of putting it.
- 9 Q. So do you see in the reference to unimpeachable
- 10 integrity a commitment that the director of the
- 11 Scientific Advisory Board will be someone who will
- 12 let the chips fall where they may with respect to the
- 13 results of the research that is undertaken?
- MR. ALLINDER: Object to the form.
- 15 A. I would think so.
- 16 Q. And what significance do you place on the
- 17 reference to the fact that the members of the
- 18 Scientific Advisory Board will be disinterested in
- 19 the cigarette industry?
- 20 A. Disinterested does not mean uninterested.
- 21 Impartial.
- 22 Q. Again, scientists who are willing to let the
- 23 chips fall where they may regardless of the results
- 24 of the research?
- 25 A. I think that that is a fair statement.

- 1 Q. Scientists who would let the chips fall where
- 2 they may with respect to prioritizing funding
- 3 requests regardless of the interests of the sponsors
- 4 of the research?
- 5 A. I would agree with that.
- 6 Q. And those are commitments that anyone reading
- 7 this document would likely arrive at?
- 8 MR. PURDY: Object.
- 9 MR. ALLINDER: Object to the form.
- 10 Q. True?
- 11 MR. ALLINDER: Same objection.
- 12 A. I wouldn't disagree with you.
- 13 Q. You read then the reference to a scientific
- 14 director of unimpeachable integrity and SAB members
- 15 disinterested in the cigarette industry to be a
- 16 commitment that the conduct of the research program
- 17 of this TIRC will been fair and objective?
- 18 MR. ALLINDER: Object to the form.
- 19 A. I would agree with that.
- 20 Q. Will permit the researchers to fully disclose
- 21 their findings?
- MR. ALLINDER: Object to the form.
- 23 A. I would agree with that.
- 24 Q. And in all respects let the chips fall where
- 25 they may if in fact the research tends to point

- 1 toward causation between cigarette smoking and
- 2 disease?
- 3 A. I think that's accurate.
- 4 Q. Now the Frank Statement does contain some
- 5 additional commitments by the cigarette industry;
- 6 does it not?
- 7 MR. ALLINDER: Object to the form.
- 8 A. Mostly in the form of joint financial aid.
- 9 Q. Well in the first column, down near the bottom
- 10 of the first column, Exhibit 3500, there's a
- 11 commitment by the industry that it accepts an
- 12 interest in people's health as a basic responsibility
- 13 paramount to every other consideration in our
- 14 business; true?
- MR. ALLINDER: Object --
- 16 A. That's what it says.
- 17 MR. ALLINDER: Excuse me. Object to the
- 18 form.
- 19 A. Sorry. That's --
- 20 Q. Now that's a commitment; is it not?
- 21 MR. ALLINDER: Object to the form.
- 22 A. No, sir.
- 23 Q. That's not a commitment? That's not a
- 24 commitment --
- 25 A. An acceptance is not a commitment. A commitment

- 1 is a promise to do something.
- 2 Q. Well do you read that statement as promising
- 3 that the cigarette --
- 4 A. Well --
- 5 Q. -- industry will put people's health paramount
- 6 to every other consideration of its business?
- 7 MR. ALLINDER: Object to the form.
- 8 A. That's a point of view. As I read it, that is
- 9 their point of view of what their basic
- 10 responsibility is. Commitment. I must say there's
- 11 another meaning of commitment. One could say there
- 12 is a commitment to a cause, commitment to missionary
- 13 Christianity or commitment to communism, what have
- 14 you. That's a different use of the word, but a
- 15 commitment to do something implies a promise to do
- 16 something.
- 17 Q. Well a commitment can be to a concept; can it
- 18 not?
- 19 A. Yes.
- 20 Q. And there can also be acceptance of a concept?
- 21 A. More or less the same.
- 22 Q. Yes. And the concept that the cigarette
- 23 industry --
- 24 A. Well, not -- no, no, I'm sorry. I regret saying
- 25 that.

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- 1 Q. Do you wish to change that answer?
- 2 A. Yes. I can accept the concept of cannibalism
- 3 but I wouldn't have any commitment to it.
- 4 Q. Well if you accepted the cannibalism, one might
- 5 readily understand that you intended to follow that
- 6 concept?
- 7 A. No, I accept the concept that it exists, but I
- 8 don't have any commitments to it.
- 9 Q. So would you -- in connection with the
- 10 statement, "We accept an interest in people's health
- 11 as a basic responsibility, paramount to every other
- 12 consideration in our business," you read that as a
- 13 reference to a concept but not a commitment to the
- 14 concept?
- MR. ALLINDER: Object to the form.
- 16 A. Well, I -- I don't know. It's not that
- 17 specific. What they are saying actually speaks for
- 18 itself. To me this means that the sponsors who are
- 19 listed below accept that an interest in people's
- 20 health supersedes many other considerations.
- 21 Q. Supersedes all other considerations of their
- 22 business; correct?
- MR. ALLINDER: Object to the form.
- 24 A. You could read it that way.
- 25 Q. Isn't that a fair way to read it?

- 1 MR. ALLINDER: Object to the form.
- 2 A. Well I think it's -- it's fair. You're getting
- 3 into semantics here. Paramount can mean the most
- 4 important. I think paramount --
- 5 Q. Paramount means superior to; correct?
- 6 MR. ALLINDER: Object to the form.
- 7 A. I think so. I think there is a subsidiary
- 8 definition somewhere that it could be among, among
- 9 the most important.
- 10 Q. Well the sponsors of the TIRC are saying that
- 11 they accept the concept that the health of their
- 12 customers is paramount and superior to all other
- 13 considerations of their business. Now that's a fair
- 14 reading, isn't it?
- MR. PURDY: Objection.
- MR. ALLINDER: Object to the form.
- 17 A. I think it's fair.
- 18 Q. And one of the considerations certainly of the
- 19 tobacco business and the cigarette industry would be
- 20 to make money; true?
- 21 A. It's what corporations are for.
- 22 Q. And making money, that's of paramount interest
- 23 to the stockholders of the companies; is it not?
- MR. ALLINDER: Object to the form.
- 25 A. I don't know. If you took a poll of

- 1 stockholders and said to them, What is more
- 2 important, health or your dividends?, they might say
- 3 health. I don't really know. I think you need a --
- 4 a sort of a gallup or roper poll of shareholders. I
- 5 mean they're not hard --
- 6 Q. Are you talking about their health or --
- 7 A. They're not a --
- 8 Q. -- or somebody else's health?
- 9 A. Shareholders are not a heartless bunch. They're
- 10 you and me, and you know, everybody else these days.
- 11 And I think we all -- all of us want to do good. So
- 12 I -- I wouldn't be surprised if a large majority of
- 13 shareholders would opt for health over profits.
- 14 Q. So you don't find it surprising that management
- 15 of the cigarette companies would accept the concept
- 16 that they should put the health of their customers
- 17 above the profits that might be supplied to their
- 18 shareholders?
- 19 MR. ALLINDER: Object to the form.
- 20 A. I don't consider tobacco executives or other
- 21 executives as evil people. I think they are
- 22 motivated by the same kind of concerns that everyone
- 23 else has. And clearly the health of -- and
- 24 well-being of our people in our society is a very
- 25 large consideration in -- in any activity.

- 1 Q. And certainly I take it you would agree that the
- 2 health of the millions of people who smoke cigarettes
- 3 in 1954 was far more important and ought to have been
- 4 far more important than the profits to be gained or
- 5 earned by those tobacco companies; true?
- 6 A. Well I think in general it's true. I mean this
- 7 is something right out of George Bernard Shaw. You
- 8 probably are familiar with the phrase that deal with
- 9 this issue. But in general I -- I think that the
- 10 health of people is more important in general than
- 11 the profit of a corporation.
- 12 Q. Well Dr. Rubin, as -- as a physician you don't
- 13 have any doubt whatsoever that the health of millions
- 14 of smokers is far more important than the profits of
- 15 the individual tobacco companies; true?
- 16 MR. ALLINDER: Object to the form of the
- 17 question.
- 18 A. I don't have any arguments with that.
- 19 Q. And you're -- you're indicating that the
- 20 management of the tobacco companies shouldn't have
- 21 had any argument with that concept either?
- 22 A. I don't think they did. This Frank Statement
- 23 speaks for itself.
- 24 Q. And I was just going to get to that. Based upon
- 25 what they put into this Frank Statement on that

- 1 subject, the management of the tobacco companies was
- 2 announcing to the public that they had no problem
- 3 with putting the health of smokers above their own
- 4 profits?
- 5 MR. ALLINDER: Object to the form.
- 6 A. I would read it that way.
- 7 Q. And I take it you would be very critical of the
- 8 management of tobacco companies if they didn't follow
- 9 through on that commitment?
- 10 MR. ALLINDER: Object to the form.
- 11 A. I believe that people should follow through on
- 12 their commitments.
- 13 Q. And this is certainly a very important
- 14 commitment with respect to the health of millions of
- 15 Americans who were smoking cigarettes back in 1954;
- 16 true?
- 17 MR. ALLINDER: Object to the form.
- 18 A. This is an important commitment.
- 19 Q. All right. Now another statement, or perhaps
- 20 it's a commitment, that the sponsors of TIRC made in
- 21 the Frank Statement was that they didn't believe
- 22 their products were injurious to health. Do you see
- 23 that?
- 24 A. That's --
- MR. PURDY: Objection.

- 1 A. -- what it says.
- 2 MR. PURDY: Object -- excuse me. Just
- 3 object to the form. Go ahead.
- 4 Q. And then they also made a commitment that the
- 5 tobacco companies would always cooperate closely with
- 6 those whose task it was to safeguard the public
- 7 health; correct?
- 8 MR. ALLINDER: Object.
- 9 Q. They indicated that they had cooperated in the
- 10 past and that they would always continue to cooperate
- 11 closely with those whose task it was to safeguard the
- 12 public health?
- MR. ALLINDER: Object to the form.
- 14 A. That's what it says.
- 15 Q. And you would regard that as a commitment, would
- 16 you not?
- 17 MR. ALLINDER: Object to the form.
- 18 A. It is a commitment.
- 19 Q. And that would be a solemn commitment given the
- 20 gravity of the potential harm that might occur if in
- 21 fact the products of cigarette manufacturers were
- 22 injurious to health?
- MR. ALLINDER: Object to the form.
- 24 A. I don't know the question exactly, but in
- 25 general I'll agree with you.

- 1 Q. Now on the -- in the second column of the Frank
- 2 Statement, the manufacturers indicate that they are
- 3 concerned that their products should even been
- 4 suspected as a cause of serious disease, that that
- 5 would be a matter of deep concern to them. Do you
- 6 see that?
- 7 A. That's what it says.
- 8 Q. Okay. And then they go on to say that in order
- 9 to meet that concern they're going to establish this
- 10 TIRC.
- 11 A. Right.
- MR. ALLINDER: Object to the form.
- 13 Q. And the TIRC is going to provide aid and
- 14 assistance to the research efforts into all phases of
- 15 tobacco use and health. That's what it says under
- 16 number 1; correct?
- 17 MR. ALLINDER: Object to the --
- 18 Q. All phases?
- 19 MR. ALLINDER: Object to the form.
- 20 A. That's what it says.
- 21 Q. And then under number 2 it says that for that
- 22 purpose; in other words, to provide aid and
- 23 assistance to the research efforts into all phases of
- 24 tobacco use and health, it's going to establish this
- 25 joint industry group; correct?

- 1 A. Correct.
- 2 Q. So the work of this joint industry group will be
- 3 to conduct research or to see that research is
- 4 conducted into all phases of the issue of tobacco use
- 5 and health?
- 6 MR. ALLINDER: Object to the form.
- 7 A. It doesn't say so, but it says they will support
- 8 research efforts.
- 9 Q. Pledging aid and assistance?
- 10 A. Yes.
- 11 Q. You interpret that as support?
- 12 A. Funding.
- 13 Q. Okay. And as we previously discussed, the
- 14 commitment that was made is that the funding would
- 15 been handled through this TIRC that would be composed
- 16 of this scientific director of unimpeachable
- 17 credibility?
- 18 A. Integrity.
- 19 Q. Okay. And who would preside over a Scientific
- 20 Advisory Board that would be disinterested in the
- 21 cigarette industry?
- MR. ALLINDER: Object to the form.
- 23 A. That's what it says.
- 24 Q. So that the public in reviewing this Frank
- 25 Statement, especially the smoking members of the

- 1 public, could be reassured that the manufacturers of
- 2 these products are going to look into this alleged
- 3 relationship between smoking and health?
- 4 MR. ALLINDER: Object to the form.
- 5 A. They are not going to look into it. They, the
- 6 sponsors, will support or fund research by members of
- 7 the biomedical community to look into the matter.
- 8 Q. So the smoking members of the public who may
- 9 have been upset to read these reports linking smoking
- 10 to disease would be reassured based upon the Frank
- 11 Statement that the cigarette industry will provide
- 12 funds to conduct research into this supposed
- 13 relationship?
- MR. ALLINDER: Object to the form.
- 15 A. That's correct.
- 16 Q. But the industry, the tobacco industry in this
- 17 same document is reassuring smokers that it doesn't
- 18 believe that its cigarette products are injurious to
- 19 health?
- 20 MR. ALLINDER: If that's a question, object
- 21 to the form.
- 22 Q. Correct?
- 23 A. There's a statement here that says "We believe
- 24 the products we make are not injurious to health."
- 25 It speaks for itself.

- 1 Q. And that would be reassuring, I take it, to
- 2 anybody who was a smoker at the time?
- 3 MR. ALLINDER: Object to the form.
- 4 A. Well I can't tell you that. That's the belief
- 5 of the cigarette manufacturers.
- 6 Q. The makers of the very product that was accused
- 7 of being injurious to health?
- 8 MR. ALLINDER: Object to the form.
- 9 A. That's correct.
- 10 Q. And certainly someone who makes a product ought
- 11 to know a great deal about the product that it makes;
- 12 true?
- MR. ALLINDER: Object to the form.
- 14 A. In general that's true.
- 15 Q. And if anybody should know whether a product is
- 16 injurious to health it ought to be the manufacturer
- 17 of the product; true?
- MR. ALLINDER: Object to the form.
- 19 A. It would be nice if that really were true, but
- 20 unfortunately the effects of -- of many products are
- 21 not immediately apparent and it is often the case
- 22 that the dangers associated with the use of that
- 23 product only become evident years later and are
- 24 discovered by others, so it's very common for the
- 25 manufacturer, as the deceived husband, to be the last

- 1 to know.
- 2 Q. But I take it you would agree with me, Dr.
- 3 Rubin, that if anybody should know whether a given
- 4 product is injurious to health, it ought to be the
- 5 entity that manufactured the product?
- 6 MR. PURDY: Object to the form.
- 7 MR. ALLINDER: Object to the form.
- 8 MR. PURDY: Argumentative.
- 9 A. You mean should be informed about this or should
- 10 be? --
- 11 Q. Should know.
- 12 A. How -- it doesn't follow. It's often that the
- 13 manufacturer produces a product that he considers to
- 14 be safe, that appears to be safe, that's legal, or
- 15 that has a customary use, and that later turns out to
- 16 be hazardous or hazardous in certain circumstances.
- 17 It is not always the manufacturer who discovers
- 18 this. In fact I would say since manufacturers are
- 19 not scientists and have limited staffs of their own
- 20 that usually it's more the public health types, the
- 21 epidemiologists or the toxicologists, who discover
- 22 the hazard based upon the occurrence of disease when
- 23 people have been exposed to the product.
- 24 Q. Well the cigarette companies employed scientists
- 25 back in 1954, didn't they?

- 1 MR. ALLINDER: Object to the form.
- 2 A. Yes, but they did not employ academic
- 3 epidemiologists who would conduct large-scale
- 4 epidemiologic studies of thousands of people. That's
- 5 not feasible in a manufacturing setting.
- 6 Q. But it's feasible to have a research and
- 7 development department; is it not?
- 8 A. Ordinarily R&D deals with the product itself,
- 9 how to make it better or more appealing or more
- 10 effective. The diseases, environmental diseases I
- 11 think which -- a study of which I have some
- 12 credibility -- are ordinarily discovered only after
- 13 large-scale studies by academic scientists. I think
- 14 it would be an unusual situation where the hazards
- 15 were -- of an apparently safe product were discovered
- 16 by the research staff of the company. Now, there is
- 17 one exception to this, and that's the pharmaceutical
- 18 industry, which is required by law to test their
- 19 products in different types of animals, so --
- 20 Q. But many other manufacturers test their products
- 21 before they're distributed to the public and test
- 22 them for safety; true?
- MR. ALLINDER: Object to the form.
- 24 A. If you tested tobacco in the routine tests that
- 25 the FDA uses, you'd probably come up with something

- 1 pretty safe.
- 2 MR. ALLINDER: Can we pause for just a
- 3 minute. Where are we on time?
- 4 (Brief recess at 4:13 p.m.)
- 5 BY MR. GILL:
- 6 Q. The manufacturers of automobiles, they do
- 7 testing to try to determine if their products are
- 8 safe; correct?
- 9 MR. ALLINDER: Object to the form.
- 10 A. They do it this time. I don't believe they
- 11 always did that.
- 12 Q. Do you think they were doing any by 1954?
- MR. ALLINDER: Object to the form.
- 14 A. Well I can't answer that.
- 15 Q. Would you expect that even in 1954 manufacturers
- 16 of -- of food products that were going to be ingested
- 17 did some type of research to be sure that there was
- 18 nothing they were putting into the food that might
- 19 cause an injurious health result?
- 20 MR. PURDY: Object to the form.
- 21 A. Let's now go back to the car manufacturers just
- 22 for a moment with your permission. One of the major
- 23 problems that occurs with automobiles I think
- 24 acknowledged by most people is air pollution. Some
- 25 years ago the air pollution of Los Angeles, let's

- 1 say, which is perhaps the most severe in the country,
- 2 was attributed for the most part to manufacturing
- 3 emissions. It was only after considerable research
- 4 that it was discovered that manufacturing emissions
- 5 played only a small role in the air pollution of Los
- 6 Angeles and that the large part of the particulates
- 7 and gaseous air pollution was caused by emissions
- 8 from automobiles. This finding, which is not
- 9 trivial, one of the major problems with automobiles
- 10 today, was not discovered by the automobile companies
- 11 at all, it was done by independent, for the most part
- 12 academic, scientists. Research into the effects of
- 13 air pollution has not been done by the automobile
- 14 companies, it's been done principally by
- 15 environmental scientists.
- 16 Q. Dr. Rubin, is it your understanding though, that
- 17 manufacturers of products do have some responsibility
- 18 to attempt to determine whether their products are
- 19 safe before they place them on the market?
- 20 A. This is my understanding.
- MR. ALLINDER: Excuse me.
- THE WITNESS: Excuse me.
- 23 MR. ALLINDER: Object to the form. Go
- 24 ahead.
- 25 A. It is my understanding, and indeed after testing

- 1 products are certified by say the FDA or other
- 2 consumer safety agencies of the government. In that
- 3 respect tobacco though unregulated has clearly been
- 4 declared a legal product and is taxed, things like
- 5 that. The -- this is not to say that it's safe, and
- 6 you are familiar with my writings on that subject.
- 7 But the -- the dangers associated with tobacco, as
- 8 with many environmental agents, have principally been
- 9 elucidated by people outside the industry. It's a
- 10 common pattern. There's nothing unusual about it.
- 11 Q. Now I take it you'd agree, Dr. Rubin, that even
- 12 with a legal product it is not appropriate to sell a
- 13 legal product through illegal means?
- 14 A. You mean smuggling?
- MR. ALLINDER: Excuse me. Object to the
- 16 form.
- 17 Q. Through any illegal means.
- 18 MR. ALLINDER: Same objection.
- 19 Q. For instance,, to misrepresent the qualities of
- 20 a legal product?
- 21 MR. ALLINDER: Object to the form.
- 22 A. I do not advocate misrepresentation.
- 23 Q. And certainly simply because a product is legal
- 24 to be sold would not excuse selling it through some
- 25 type of illegal conduct?

- 1 A. I would not support illegal conduct.
- 2 Q. Now let's go back to the -- to the statement in
- 3 the -- in Exhibit 3500 that we believe that the
- 4 products we make are not injurious to health. Are
- 5 you telling me that you wouldn't expect that as of
- 6 1954 that the tobacco industry would have any basis
- 7 to know one way or the other whether its products
- 8 were injurious to health?
- 9 MR. ALLINDER: Object to the form.
- 10 A. I do not hold myself out as an expert in the
- 11 state of the art of what was precisely known in
- 12 1954. Whatever I know about it is based upon
- 13 recollections of what I knew as a medical student,
- 14 but an informed citizen.
- 15 Q. So you --
- 16 A. So--
- 17 Q. As you sit here today you don't really know what
- 18 the cigarette industries knew about the safety of
- 19 their products back in 1954?
- 20 A. Well --
- 21 MR. ALLINDER: Excuse me. You need to wait
- 22 until he's done.
- THE WITNESS: I haven't said a word.
- MR. ALLINDER: You were winding up. Object
- 25 -- object to the form. I sensed it.

- 1 THE WITNESS: Extrasensory perception.
- 2 Q. Is that a fair statement, Dr. Rubin?
- 3 MR. ALLINDER: Same objection.
- 4 A. Well it's a fair statement in the sense that I
- 5 have not made a systematic study.
- 6 Q. All right.
- 7 A. Which --
- 8 Q. And would it --
- 9 A. -- which is --
- 10 Q. Pardon me.
- 11 A. -- possible to make, and perhaps others have
- 12 made such studies. I have not participated in a
- 13 precise study, but I do know that the epidemiologic
- 14 data and the skin painting experiments at that time
- 15 elicited considerable controversy and that the issues
- 16 relating to smoking and health were by no means
- 17 closed issues at that time.
- 18 Q. Now when the smoking industry stated in the
- 19 Frank Statement that it believed its products were
- 20 not injurious to health, do you think it's reasonable
- 21 that -- that smokers reading that statement would
- 22 believe that the cigarette manufacturers had some
- 23 basis upon which to make that statement?
- MR. ALLINDER: Object to the form of the
- 25 question.

- 1 A. That would be a reasonable inference.
- 2 Q. All right. And certainly the -- the statement
- 3 by the manufacturers that they didn't believe
- 4 cigarettes were injurious to health would be a lot
- 5 more reassuring to smokers than a similar statement
- 6 from the automobile industry?
- 7 MR. ALLINDER: Object to the form of the
- 8 question.
- 9 A. You mean a similar statement about automobiles,
- 10 about the automobile?
- 11 Q. No, about cigarettes. If the automobile
- 12 industry had said, We don't believe that smoking is
- 13 injurious to health, that wouldn't be very reassuring
- 14 to smokers, would it, because what does the
- 15 automobile industry, what would they presumably know
- 16 anything about smoking?
- 17 A. Well why would they?
- 18 MR. ALLINDER: Excuse me. Object to the
- 19 form.
- 20 Q. But if the cigarette industry made a statement
- 21 that it did not believe that the products it makes
- 22 were injurious to health, such a statement could well
- 23 be reassuring to smokers concerned about these
- 24 studies linking smoking to cancer?
- MR. ALLINDER: Object to the form.

- 1 Q. True?
- 2 MR. ALLINDER: Same objection.
- 3 A. Well I can't speak for the general public. I
- 4 maybe have a built-in skepticism for self-serving
- 5 statements by people or organizations, and --
- 6 Q. Is that what you think these -- these statements
- 7 are on the Frank Statement, simply self-serving
- 8 statements with no more than public relations value
- 9 to them?
- 10 A. No, I --
- 11 MR. ALLINDER: Objection.
- 12 A. -- I didn't say that at all.
- MR. ALLINDER: Object to the form.
- 14 Q. There's nothing in this statement that purports
- 15 to suggest that the cigarette industry is anything
- 16 other than sincere with respect to these commitments;
- 17 true?
- 18 MR. ALLINDER: Object to the form.
- 19 A. True. A self-serving statement can be sincere
- 20 and can be accurate. It may serve better the
- 21 interests of the person or organization who says it,
- 22 but by itself the term "self-serving" to me is
- 23 neutral. It may be accurate and it may be sincere.
- 24 It means only that it advances the interests of the
- 25 individual or organization, but --

- 1 Q. And of course you weren't a smoker back in 1954
- 2 because you haven't smoked cigarettes during your
- 3 life?
- 4 MR. ALLINDER: Object to the form.
- 5 A. I did. I smoked two cigarettes. I smoked one,
- 6 didn't like it. The second one convinced me I would
- 7 never like it.
- 8 Q. So assuming you had the two cigarettes prior to
- 9 1954, I take it that you weren't specifically
- 10 concerned about this health risk as it pertained to
- 11 you?
- 12 A. No.
- 13 Q. Obviously your views might have been different
- 14 if you smoked one or two packs of cigarettes a day in
- 15 1954 and had been doing so for several years?
- MR. ALLINDER: Object to the form.
- 17 O. True?
- 18 A. I would be more concerned about my health, but
- 19 not from the Frank Statement, but from the evidence
- 20 that had been accumulating would give me pause, yes.
- 21 Q. And it would be natural to want to rationalize
- 22 your use of some product that was linked to a deadly
- 23 disease like lung cancer; true?
- MR. ALLINDER: Object to the form.
- 25 Q. Especially if you wanted to keep smoking and

- 1 enjoyed smoking?
- 2 MR. ALLINDER: Object to the form.
- 3 A. I would say if you wanted to keep smoking you
- 4 might look for good reasons to continue to smoke.
- 5 Q. And in fact if you not only liked smoking but
- 6 were addicted to smoking, you would be in even
- 7 greater search of reasons to continue the habit --
- 8 MR. ALLINDER: Object to the --
- 9 Q. -- or the addiction; true?
- 10 MR. ALLINDER: Object to the form.
- 11 A. I'm not an expert on addiction. I know
- 12 something about the topic. But the facile
- 13 distinction between liking cigarettes and being
- 14 addicted to them is a subject of discussion all of
- 15 its own, so I think we ought to either have a long
- 16 discussion about addiction or leave out a
- 17 politically-charged term.
- 18 Q. Well I don't think we need to have a long
- 19 discussion about it, but you're certainly familiar
- 20 with people who are addicted to alcohol, you've --
- 21 you've studied that subject; have you not?
- 22 A. I have indeed.
- 23 Q. And someone -- and certainly there are health
- 24 risks that are involved with excessive use of alcohol
- 25 as you have pointed out in a number of your

- 1 publications?
- 2 A. There are serious health risks, yes.
- 3 Q. And somebody who is addicted to alcohol in the
- 4 sense that they are an alcoholic would certainly look
- 5 for all kinds of rationalizations as to why they
- 6 might not succumb to any of the alcohol-related
- 7 diseases that are out there?
- 8 MR. ALLINDER: Object to the form.
- 9 Q. True?
- 10 A. True in part. Some alcoholics look for reasons
- 11 and say it's not going to hurt them. Probably more
- 12 feel that it's going to kill them but they prefer to
- 13 drink the alcohol and die young, you know. That's
- 14 the fact of life and it's unfortunate.
- 15 Q. Certainly with respect to addicted users of --
- 16 of products that want to believe that the danger
- 17 inherent to the products use won't befall them, they
- 18 would be looking for reasons to support that view?
- 19 MR. ALLINDER: Object to the form.
- 20 Q. True?
- 21 A. Well they might. You know, probably most
- 22 smokers that I have been acquainted with are fully
- 23 aware of the risks that they run by smoking, and get
- 24 enough pleasure from cigarettes for whatever reason
- 25 that they are willing to run those risks.

- 1 Q. And again, this isn't a study you've conducted,
- 2 this is just --
- 3 A. This is my.
- 4 Q. -- Conversations you've had with acquaintances
- 5 on that subject?
- 6 A. This is my impression. I mean quite apart from
- 7 scientific studies I also have impressions of human
- 8 behavior, and that is one of my impressions. I -- I
- 9 would go back to my childhood. I believe that when I
- 10 was a child in the 30s that people recognized
- 11 cigarettes weren't good for you. We called them
- 12 coffin nails.
- 13 Q. And do you know smokers who don't believe that
- 14 they will succumb to any of the diseases that are
- 15 linked to smoking?
- 16 A. Well I know a couple, two, physician smokers who
- 17 understand the risks they run and are willing to risk
- 18 the bullet in the hope that they will dodge the
- 19 bullet.
- 20 Q. And --
- 21 A. But they know the bullet's out there.
- 22 Q. And these are physicians that I take it have
- 23 accepted the causal link between smoking and cancer
- 24 and cardiovascular disease?
- 25 A. Oh, yes. They're -- they're --

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- 1 Q. Now many lay people, smokers, back in 1954 may
- 2 very well not have been prepared to accept the causal
- 3 link between their smoking habit and those deadly
- 4 diseases; true?
- 5 MR. ALLINDER: Object to the form.
- 6 A. Well that's speculation on my part. I have no
- 7 factual knowledge. But the -- I think -- I think
- 8 what you had was a mixed population. I -- I believe
- 9 from what I recall of those times that virtually
- 10 everyone was aware that cigarette smoking had been
- 11 alleged to be incriminated as a cause of lung cancer
- 12 and perhaps some other diseases. It is my guess that
- 13 some of them quit smoking, some of them continued
- 14 smoking in the hope that they could continue their
- 15 habit but not been one of the victims. Some people
- 16 probably were ignorant of the entire matter. There
- 17 were many -- you know, many other people who look
- 18 upon it as a -- as a risk-benefit type of situation,
- 19 feel that they're getting enough benefit out of
- 20 smoking that they're willing to take the risks. Most
- 21 people know there are very real risks.
- 22 Q. But I take it that it's reasonable to assume
- 23 that most smokers who have read the Frank Statement
- 24 back in 1954 were glad to find out that the cigarette
- 25 industry was going to put their health interests

- 1 above the profit interests of the industry?
- 2 MR. PURDY: Objection.
- 3 MR. ALLINDER: Object to the form.
- 4 Q. True.
- 5 MR. PURDY: That calls for speculation.
- 6 A. Well I think it's a nice thing, yeah, I --
- 7 Q. They'd been reassured to know that?
- 8 MR. ALLINDER: Object to the form.
- 9 A. Again you use loaded terms. I'm not sure how
- 10 reassured people are by public statements or
- 11 advertisements, but I think people would look upon
- 12 this and say they're doing the right thing.
- 13 Q. And smokers would be reassured to know that the
- 14 manufacturers of these products, they didn't believe
- 15 that the products were injurious to the health of
- 16 their customers?
- MR. ALLINDER: Object to the form.
- 18 Q. True?
- 19 A. I -- I -- that -- that I really don't know. You
- 20 know, there are some people who are born skeptics who
- 21 are not, there are other people who will accept
- 22 whatever they read as long as it's printed, and there
- 23 are many people in between.
- 24 Q. And many people who rationalize bad habits?
- 25 A. I'm sure they -- there are.

- 1 Q. And smokers would also be reassured to know that
- 2 the tobacco industry was going to cooperate closely
- 3 with those who were expected to safeguard the public
- 4 health as it would relate to smoking and disease?
- 5 MR. ALLINDER: Object to the form.
- 6 Q. True?
- 7 A. As I say, "reassured" is a word that I am not
- 8 sure is appropriate here, but they would be pleased
- 9 to know that there would be such cooperation.
- 10 Q. And through the creation of the TIRC and the
- 11 SAB, those smokers would be reassured to know that if
- 12 the research sponsored by the cigarette industry
- 13 developed information establishing the causal
- 14 connection between smoking and disease that the
- 15 industry would fully disclose that information to
- 16 them. That would be reassuring also; true?
- MR. ALLINDER: Object to the form.
- 18 A. I think you've got the role of the TIRC a little
- 19 wrong. There was never a time when the funding by
- 20 TIRC was a major part of worldwide funding in the
- 21 tobacco research. It began as a small part of that
- 22 and always remained quite a small part of total
- 23 funding for research that was relevant to tobacco
- 24 use. So when you say that the cigarette companies
- 25 would alert the public to any findings from the TIRC,

- 1 there is an implicit assumption that somehow those
- 2 findings would be more important or more worthy of
- 3 dissemination than all of the research relating to
- 4 tobacco and health funded by other organizations such
- 5 as the National Cancer Institute as a prime example,
- 6 and that is incorrect. TIRC and its later
- 7 organization, CTR, did produce interesting and
- 8 important data, but by -- but were by no means the
- 9 only source of such information, and if the tobacco
- 10 companies or any other organization were to
- 11 disseminate information, they certainly would not
- 12 restrict it to projects funded by the CTR.
- 13 Q. But certainly if research funded by the tobacco
- 14 industry itself demonstrated a causal link between
- 15 smoking and cancer and that research was disclosed
- 16 through the good auspices of the tobacco industry,
- 17 that would be a very credible piece of information to
- 18 smokers; true, in terms of their ability to continue
- 19 to rationalize a dangerous habit?
- 20 A. Well I --
- 21 MR. ALLINDER: Object -- excuse me. Object
- 22 to the form.
- 23 A. As I've told you, the funding, the source of
- 24 funding for scientific research is irrelevant. It's
- 25 the results of scientific research. So whether this

- 1 link were established by a project funded by CTR or a
- 2 project funded by NIH or American Cancer Society is
- 3 irrelevant. It's the information that gets out into
- 4 the public domain that's important and the
- 5 credibility of the work itself, the credibility of
- 6 the journal, the credibility of the investigator.
- 7 Those are the things that count. It's not the source
- 8 of funding.
- 9 Q. The average member of the public wouldn't be
- 10 aware of all those nuances; true?
- 11 MR. ALLINDER: Object to the form.
- 12 A. I think that the average member of the public
- 13 would read in the paper that A is linked to B and
- 14 results in C. He might then read somewhere if he
- 15 gets to the end of the article who sponsored the
- 16 research, but what he would read and what the
- 17 headline would say is the substance of the research,
- 18 and that's the way it goes. I would challenge you to
- 19 disclose to me the funding for the relationship
- 20 between high cholesterol and heart disease. I
- 21 believe you're probably aware that there is such a
- 22 relationship. And I doubt very much, unless you
- 23 surprise me, that you can tell me which precise
- 24 papers have really put it on the map and who funded
- 25 those studies.

- 1 Q. Assuming the average member of the public
- 2 couldn't do that, do you think the average member of
- 3 the public who was concerned about cholesterol would
- 4 be influenced by an article in a newspaper announcing
- 5 that a research project funded by the egg industry
- 6 had demonstrated --
- 7 (Reporter interruption.)
- 8 Q. -- the egg industry --
- 9 A. The Egg Board is actually the title.
- 10 Q. -- had demonstrated a cause and effect
- 11 relationship between ingestion of eggs, high
- 12 cholesterol and heart disease?
- 13 A. Probably have --
- 14 MR. ALLINDER: Excuse me, I'm not sure that
- 15 I heard a question, but I object to the form.
- 16 A. The average person, including everyone in this
- 17 room, would read the headline, would read the story,
- 18 and might or might not remember that at the end of
- 19 the story there is a little line that said, "This
- 20 study was sponsored by the Egg Board."
- 21 Q. If it was sponsored by the Egg Board, it's not
- 22 likely that that would be a little tag line at the
- 23 end of the article; true?
- MR. ALLINDER: Object to the form.
- 25 A. In my experience the source of funding goes at

- 1 the end because it's not terribly relevant. And
- 2 indeed, I challenge you to tell me the source of
- 3 funding of the major papers that have established the
- 4 link between cholesterol and heart disease.
- 5 Q. Well unfortunately you don't get to ask any
- 6 questions today.
- 7 A. Okay.
- 8 MR. PURDY: But I think if you can't answer
- 9 that you ought -- you ought to stop.
- 10 MR. GILL: I am just about done.
- 11 Q. Dr. Rubin, are you telling me as we complete
- 12 this area of your examination that you don't believe
- 13 that it would be of particular relevance to smokers
- 14 to find out that research sponsored by the cigarette
- 15 industry had produced results that established a
- 16 causal link between smoking cigarettes and cancer and
- 17 other diseases?
- 18 A. I don't --
- 19 MR. ALLINDER: Object to the form.
- 20 A. I don't think the average smoker or nonsmoker
- 21 would give a damn who sponsored the research. I
- 22 think he would care very much what the results of the
- 23 research were.
- 24 Q. And the --
- 25 A. But I --

- 1 Q. Do you think somebody attempting to rationalize
- 2 their continued use of cigarettes would react any
- 3 differently to a study that purported to establish
- 4 the link between smoking and disease if on the one
- 5 hand the study had been sponsored by the cigarette
- 6 industry or on the other hand the cigarette industry
- 7 publicly announced that it disputed the results of
- 8 the study?
- 9 MR. ALLINDER: Object to the form.
- 10 A. I think it's all irrelevant. I think people
- 11 look at what the newspapers say the facts are. The
- 12 facts will speak for themselves and they may be
- 13 influenced by what leaders in the field say, by what
- 14 the Surgeon General of the United States said, by
- 15 what the Direct Chief of Medicine at the Mayo Clinic
- 16 says or people of that caliber. These are the things
- 17 that influence public opinion, not the source of
- 18 funding of research projects.
- 19 Q. And certainly one of the leaders in the tobacco
- 20 field would be the manufacturers of cigarettes?
- 21 A. They would not be leaders in medical research,
- 22 they are leaders in the manufacture of cigarettes and
- 23 other tobacco products, but not leaders of medical
- 24 research.
- 25 Q. And --

- 1 A. That does not mean to say that funding of
- 2 scientists by the CTR has not been beneficial, it has
- 3 been, it's resulted in important and significant
- 4 papers, but in terms of the general public I think
- 5 that the source of funding is not an important issue.
- 6 Q. But as an investigator here attempting to let
- 7 the chips fall where they may, you don't perceive
- 8 that and admission by the cigarette industry that
- 9 cigarettes cause lung cancer and other diseases would
- 10 have any material effect on the continued use of
- 11 cigarettes by their customers?
- MR. ALLINDER: Object to the form.
- 13 A. I don't think it would make any difference at
- 14 all, given -- given the publicity attached to
- 15 findings of the Surgeon General and given the
- 16 publicity to many other epidemiologic and
- 17 experimental studies.
- 18 Q. All of which the cigarette industry has
- 19 attempted to dispute?
- MR. ALLINDER: Objection.
- 21 MR. PURDY: Objection to form.
- 22 MR. ALLINDER: That's a good place to stop,
- 23 Dick. Don't you think?
- 24 MR. GILL: Yes, it is. Can we have an
- 25 answer to that?

1	MR. ALLINDER: Do you want to hear the
2	question again?
3	THE WITNESS: Well what is the question?
4	(The record was read by the reporter.)
5	MR. GILL: There's at the question mark at
6	the end of that statement.
7	THE WITNESS: Oh.
8	Q. All of those studies that you just referred to
9	by the Surgeon General and the others, the cigarette
10	industry has attempted to dispute the results of
11	those studies; true?
12	MR. PURDY: Object to the form. That
13	that misstates the that's a misstatement of the
14	record.
15	MR. ALLINDER: And I have an objection to
16	it.
17	A. I'm not entirely familiar with all the
18	statements of the cigarette industry.
19	Q. In response to those studies?
20	A. That's correct.
21	MR. GILL: Okay.
22	MR. ALLINDER: Done. 8:30 tomorrow.
23	(The deposition was in recess at 4:44 p.m.)
24	
25	

1	CERTIFICATE
2	I, Judy A. Steinke, hereby certify that I
3	am qualified as a verbatim shorthand reporter; that I
4	took in stenographic shorthand the testimony of
5	EMANUEL RUBIN, M.D. at the time and place aforesaid;
6	and that the foregoing transcript, Volume I,
7	consisting of pages 1 through 241, is a true and
8	correct, full and complete transcription of said
9	shorthand notes, to the best of my ability.
10	Dated at Deerwood, Minnesota, this 8TH day
11	of September, 1997.
12	
13	
14	
15	Judy A. Steinke
16	Shorthand Reporter
17	Notary Public
18	
19	
20	
21	
22	
23	
24	
25	

1	SIGNATURE PAGE
2	I, EMANUEL RUBIN, M.D., the deponent,
3	hereby certify that I have read the foregoing
4	transcript, Volume I, consisting of pages 1 through
5	241, and that said transcript is a true and correct,
6	full and complete transcription of my deposition,
7	except per the attached corrections, if any.
8	
9	(Please check one.)
10	Yes, changes were made per the attached
11	(#) Signature Page Addendums.
12	
13	I have made no changes.
14	
15	
16	
17	
18	
19	EMANUEL RUBIN, M.D.
20	Deponent
21	Sworn and subscribed to before me this day of
22	
23	, .
24	Notary Public
25	My commission expires .
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